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# ARTHAVAAN

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# An Empirical Investigation on Strength of Association Between the Demographic and Behavioural Aspect of the Consumer Purchasing through Online Mode— A Behavioristic View

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**Abstract:** *The study of consumer purchase decisions has become a very challenging task for organisations. As in the modern time especially with the appearance of the economic crises, and the global pandemic. The features of a particular product or service and the strategy that a particular company should obtain in the competitive environment has become one of the major activities for the organisation. In modern times, the advancement of technology and the internet (online shopping websites) has changed the consumer purchase decision-making process towards a particular product or a service. As of now, the consumer has started comparing the different product prices on the different online sites and different traditional stores before purchasing. Now consumers have become more particular towards their purchase decision. This study sought to address the gap in the literature concerning the different factors that influence the buying decision of different shopping platforms. The study was conducted covering major two-tier cities of Central India. Various statistical tools like mean analysis, chi-square Cramer V, ANOVA were applied. Close to moderate association was observed between various variables.*

**Key Words:** *Consumer buying behavior, Online Shopping, shopping mode, Price.*

## 1. Introduction

For the years, marketers are using several psychological pricing strategies to influence the consumer purchase decision. The purchase decision is a process where the action is taken by the consumer to choose a product or a

service. The consumer purchase decision is considered a most complex and dynamic issue. Consumers consider numerous factors while choosing a product, such as brand image, price, service, quality, experience. However, price is one of the major factors which directly influence the consumer purchase decision. It is a factor that majorly attracts the buyer or one of the significant attributes on which consumers highly focus while making a significant choice of product. Price can be defined as an exchange rate that can be equated with the money or even the other item to drive benefit from the good or in other words price is an element that is paid by the consumer to get the benefit of a product. This is the only element in the marketing mix which is much more flexible as compared to other elements of marketing and the only element which generate revenue for the company. Thus, consumer pricing psychology highly impacts a pricing strategy of a product. When Consumers make a decision, a consumer has different price perceptions. Although this perception directly or indirectly influences consumer purchase behaviour (Herrmann et al., 2007). Thus the fact drive that higher the price of a product leads to higher quality for a product as compared to lower the price of the product leads to lower the quality (Amanah et al., 2017).

Researchers also noted that when the consumer makes a

purchase decision, the consumer checks a large number of different products to ensure the best price available. With advanced technology, there is an increase in consumer knowledge about how to spend their money on their desired product in a well-utilized manner or other words in a manner so that they get more value about their product (Harahap, Amanah and Agustini, 2018). As of now with the increase in technology, there is an increase in the customers' awareness through the internet-enabled search for obtaining the lowest priced product. This unquestionably makes online or offline pricing as most extrinsic cues are utilised by the consumer to make a purchase decision. As there is a rapid increase in competition between online and offline markets to attract consumers and marketers started using different pricing strategies by lower prices which also give consumer option to browser or suffers different shopping websites and different traditional stores to get the best offer or price for a product (Harahap et al., 2018).

## **2. Literature Review**

### **2.1 International Studies**

Faith & Edwin, (2020) observed in their research work that among the 4P's price is the most important and also one of the income-generating factors, which adds value to the product or service, where the price is a value that a customer agrees to pay to gain the benefit of that product or service. Different consumers consider price differently. The higher the importance of price in the purchase of the product the higher the intensity of the information and the higher the amount of comparison between the different shopping channels to purchase a product which gives more value for their money with the low price. The main determinant of this study shows that the, most flexible element of the marketing mix is price and one of the most important factors which consumers want to perceive for their product is price.

Salamin & Hassan, (2020) in their research paper observed that purchase decision is majorly based on how consumer considers or perceives the price where the price is a factor that highly affects the consumer

decision-making process. Some of the consumers also care or consider the other factor rather than price such as brand, Image, quality, service but the majority of consumers are sensitive toward the price of a product because consumers consider price as an indicator of the quality and always try to obtain for the best quality. This paper also shows the positive relationship between the price and the purchase decision of the consumer as the suitable price make the consumer more comfortable or willing to purchase the product.

Research conducted by Safitri (2020) suggests that various factors are taken under consideration by the consumer to make a purchase decision but the price is the major factor that highly impacts the consumer perception because the price explains or provide deep information about the product. The research determines that consumer is very rational when it comes to judging the benefit of the product while paying the minimum cost as well as a consumer always decide to drive or purchase at the time when they can obtain a low-price good as compared to high priced goods.

Harahap et al, (2018) in their study found that if the price of a product is too high or even too low then it will directly affect the consumer purchase decision. The high price makes the consumer switch to other similar products or even the substitute of the product with the cheaper price. If the price of the product is too low then the consumer becomes unsure about the quality, of the product, thus he will try to delay his purchase decision.

Mbuya Njeru, (2017) in his research stated that consumer is price-sensitive as well as more demanding for the value of their money. It also reflected that there is a positive relationship between pricing strategy and consumer purchase decision and a firm should adopt different pricing strategies that appeal to the consumer about the influence the buying behaviour of consumer as well as also make more sales of the product.

Cavallo, (2017) observed that in the digital era there is a dynamic pricing strategy that typically causes high pricing differences on the online or offline channel. Both

channels provide different prices for the same product but consumer always checks on a different channel to obtain a product that is cheaper or gives more value for the product.

Fassnacht and Unterhuber (2016) suggested various strategies that traditional and online channels adopt to make their sale where they charge different prices for the same product but consumers are allowed to purchase their preferred channel. There is a wide range of price dispersion in the online and offline market but consumer makes purchase decision only when after they evaluate different prices of the product on different shopping platform.

Findings in this (Arihara et al , 2016) study suggest that most consumers prefer to buy when the price is low because they have the perceptiveness of saving money. At the time of buying, low prices make the consumer to save their money.

Alfred, (2013) observed in this study that no matter how the quality of the product is and what product is about some consumers are unable to pay more than a certain price however some can afford but they believe to spend their money on another way which may give them greater satisfaction. Conversely being cheap of the product is not enough for the consumer a product must come -up with some kind of expectation but the fact remains the same as consumer considers both price and quality in their purchase decision.

Kenesei and Todd, (2013) in their paper states that if **the** consumer obtains the special-price product or the high price product then the consumer does a more intensive search on the different channel and compare more different prices of the same product on a different network to get the cheap price. Although consumers become better at recalling the price of a product as compared to those who purchase the product at the normal prices.

Chang (2009) found that at the evaluating stage price play a crucial role because at the time of browsing websites and searching in traditional market consumer

use price as the first determinant to filter out the prices which are exceeding the perceived or acceptable range. However, at the time of purchase, there is no guarantee that the consumer obtains the best offer.

## 2.2 Indian Studies

Akalamkam and Mitra, ( 2017) inferred that consumers normally like to surf the internet and other traditional platforms before making a purchase decision and always try to peruse low prices for the product. Majorly this is considered as a consumer pre-purchase stage which is considered as the acquisition of the information from different sources about the product. This search is influenced by a number of factors and price is the first factor that consumers mostly filter out and consumers always try to pursue the best value of the product within a certain pricing limit.

Indian consumers are value-conscious as well as price maven. They find themselves well informed on price and always try to obtain the best value for their money. (Dawra et al, 2016)

This study shows that not only by the internet firms but also the traditional stores also use low price to attract the consumer most of the Indian malls come up with the low pricing strategy to attract them. (Khare et al, 2014)

Agarwal and Agrawal, (2012) studied the buying behaviour of Indian consumers and observed that they are emerging or becoming more trend-conscious which is seems a shift from price consideration to the design and quality of the product but at the same time consumers do not prefer to pay the high price to the retailers or any firm as well as commensurately, they will also try to compare different prices of the product to obtain for the low on value product. The result of this study shows price highly impact the consumer perception towards a product.

Rakesh and Khare, (2012) observed that there are different pricing strategies and price promotions offered by different channels in India. Most Internet firm uses price as a mode of promotion. The top internet firms

like Amazon, Flipkart follow low prices to attract the consumer.

### 3. Research Method

#### 3.1 Research Objectives

1. The main objective of this research is to study the association of various demographic variables with selected variants of consumer buying behavior.
2. To study the demographic influence on Shopping time, pricing, offers & Discounts.

#### 3.2 Type of Research

In this study, a descriptive cross-sectional design has been applied.

##### 3.2.1 Scope

The data was collected using the convenience sampling snowball method, as there was no chosen target group, individuals of all age groups were asked to participate in a survey to get unbiased results. The survey was conducted in the cities of Madhya Pradesh namely Indore, Bhopal, Jabalpur, Ujjain and Gwalior. The sampling unit includes everyone whether male or

female, married, unmarried professional, homemaker, self-employed, employee, and person with any level of education but must be above 18 years of age. In this survey total of 482 respondents participated who represented the purchasing patterns of the large population.

##### 3.2.2 Data Collection

A self-administered questionnaire was used for data collection. It consisted of close-ended questions. The respondents were asked to rate the factors that influence their decision making. Variables were rated on a four-point Likert Scale. A high level of validity was ensured through a pilot test of the questionnaire with 56 respondents. Their views were incorporated in the final questionnaire. The data was collected during April and July 2020. The total number of questionnaires distributed was 655. However, the researcher received 482 fully answered questionnaires and all of them were included in the study. Thus, the response rate was 73%. Geographically, the study was restricted to the tier 2 city of Madhya Pradesh. Secondary data was collected through various sources like a past journals, books, newspapers etc.

**Table 1**  
**Methodology Compendium**

S. No.	Parameter	Brief Note
1	Type of Research	Descriptive cross-sectional design
2	Data collection method	Primary and Secondary (Mixed method)
3	Data Collection Time	February 2021-June 2021
4	Research Instrument	Survey Questionnaire was sequential based for Hypothesis testing, Pilot study for validation of the Questionnaire
5	Survey Administration	Google Form
6	Instrument Validity Testing	Cronbach's Alpha
7	Sampling Type	Convenience sampling and snowball
8	Sample Size	482
9	Analysis	Reliability Test, Descriptive statistics, Mean Analysis, Chi-Square Test, Cramer V
10	Hypothesis Testing	Chi Square
11	Software Tools	SPSS Version 23

### 3.2.3 Data Analysis

Various statistical analysis techniques such as descriptive statistics, Chi-square analysis, Cramer

V ANOVA & mean analysis were used, which were processed by statistical software. The analysis of data was carried out using Statistical Package for the Social Sciences (SPSS) 23.0 for Windows.

### 3.2.4 Hypothesis

30 hypotheses were tested

**Table 2**

Hypothesis	Statement
H 1.1 to 1.5	There is no significant association between shopping time and Demografic variables
H 2.1 to 2.5	There is no significant association between price influence and Demografic variables
H 3.1 to 3.5	There is no significant association between promotional Offers and Demografic variables
H 4.1 to 4.5	There is no significant association between promotional Discount and Demografic variables
H 5.1 to 5.5	There is no significant difference between mean of Shopping mode and Demografic variables
H 6.1 to 6.5	There is no significant difference between mean of Price comparision and Demografic variables

## 4. Data Interpretation

### 4.1 Descriptive Statistics

The respondents' demographic profile looks at the age bracket, level of income, gender, occupation, and education. In Table 2, it is shown that how respondents are distributed based on their demographic profile. The collected data revealed that this study consist of 232 Male and 250 females. The major number of respondents about 71.6% are aged between 19 - 30 years. The data on education revealed that major respondents

are educated that is 39.6% respondents are graduated, 21.8% are postgraduate while 6.8% are professionals in their qualified field. The occupational information of respondents shows that 53.3% are students, whereas as 12.2% homemaker and 16.6% are businessmen. The statistical data on the income level revealed that the family income of 47.9 % of respondents is less than 5,00,000 and 39% are between 5,00,000 to 15,00,000 and 6.6% have more than 25,00,000, this data indicates that the majority of respondents in this study are middle-class and upper-middle class.

**Table 3**

Demographic Details		Frequency	percent	cumulative percent
Gender	Male	232	48.1	48.1
	Female	250	51.9	100.0
	Total	482	100.0	100.0
Age	Under 18	42	8.7	8.7
	19 -30	345	71.6	80.3
	30- 60	85	17.6	97.9
	60 above	10	2.1	100.0
	Total	482	100.0	100.0

Demographic Details		Frequency	percent	cumulative percent
Education	10th/12th pass	153	31.7	31.7
	Graduate	191	39.6	71.4
	Post Graduate	105	21.8	93.2
	professional	33	6.8	100.0
	Total	482	100.0	100.0
Occupation	Homemaker	59	12.2	12.2
	Student	257	53.3	65.6
	Self-employed/Business	80	16.6	82.2
	Service/Salaried	86	17.8	100.0
	Total	482	100.0	100.0
Family Income (yearly)	Less than 5,00,000	231	47.9	47.9
	5,00,000 - 15, 00,000	188	39.0	86.9
	15,00,000 - 25,00,000	31	6.4	93.4
	More than 25,00,000	32	6.6	100.0
	Total	482	100.0	100.0

#### 4.2 Reliability Test

The test of reliability was applied to dependent variables. As a test of reliability Cronbach's Alpha was

adopted to represent internal consistency. The value of Alpha is .725, thus can be concluded that there is a high level of internal consistency.

#### 4.3 Mean Analysis of Identified Component Variable

Table 4

		[choose to shop based on the offers]	[choose to shop on the discount]	[I usually spend more time whenever I do shopping]	[prefer brands with low price]
N	Valid	482	482	482	482
	Missing	0	0	0	0
Mean		3.0934	3.0373	2.9004	2.6805
Std. Deviation		.69270	.69946	.79135	.84420

Based on the above table it can be inferred that respondents are influenced by offers and discounts and they choose to shop and like to avail. Although mean suggest that majority of respondents like to spend more

time while shopping, probably they enjoy this activity. Respondents do not prefer brands that have low price.it means they don't prefer cheap brands.

## 4.4 Testing of Hypothesis

### Chi-Square Test

**Table 5**

Hypothesis Statement			
Hypothesis	Statement	Sig	Remark
H 1.1	There is no significant association between Shopping time and Age	0.000	Hypothesis Rejected
H 1.2	There is no significant association between Shopping time and Gender	0.000	Hypothesis Rejected
H 1.3	There is no significant association between Shopping time and Education	0.000	Hypothesis Rejected
H 1.4	There is no significant association between Shopping time and Occupation	0.000	Hypothesis Rejected
H 1.5	There is no significant association between Shopping time and Family Annual Income	0.000	Hypothesis Rejected

At 5% significance level Hypothesis H1.1 to H1.5 demographic factors. The strength of association will be observed through Cramer's V. is rejected as the value is less than .05, thus there is an association between Shopping time with all

**Table 6**

Strength of association between variables		
Hypothesis	Association of Demographic factors with Shopping Time	Cramers V
H 2.1	Strength of association between Shopping Time and Age	0.245
H 2.2	Strength of association between Shopping Time and Gender	0.301
H 2.3	Strength of association between Shopping Time and Education	0.152
H 2.4	Strength of association between Shopping Time and Occupation	0.211
H 2.5	Strength of association between Shopping Time and Family Annual Income	0.246

As per table 6 value of Cramer's V for H1.3 is .15 &.29 which also indicate moderate association. While which imply that the association between variables is Strength of association between Gender and shopping time is .301 which suggest a strong association. weak .H1.1 H1.4 and H1.5 has to value between .20

**Table 7**

Hypothesis Statement			
Hypothesis	Statement	Sig	Remark
H 2.1	There is no significant association between Price Influence and Age	0.000	Hypothesis Rejected
H 2.2	There is no significant association between Price Influence and Gender	0.001	Hypothesis Rejected
H 2.3	There is no significant association between Price Influence and Education	0.007	Hypothesis Rejected
H 2.4	There is no significant association between Price Influence and Occupation	0.023	Hypothesis Rejected
H 2.5	There is no significant association between Price Influence and Family Annual Income	0.000	Hypothesis Rejected

Hypothesis H 2.1 to H 2.5 in table 7 are rejected, as values is less than .05 which means that there is a significant association between variables. The strength of association will be detected through Cramer's V.



**Table 8**

Strength of association between variables		
Hypothesis	Association of Demographic factors with Price Influence	Cramers V
H 2.1	Strength of association between Price Influence and Age	0.218
H 2.2	Strength of association between Price Influence and Gender	0.185
H 2.3	Strength of association between Price Influence and Education	0.125
H 2.4	Strength of association between Price Influence and Occupation	0.115
H 2.5	Strength of association between Price Influence and Family Annual Income	0.23

As per table 8 value of Cramer's V for H2.3 and H2.5 it was weak. Value of H2.1 and 2.5 suggest that the association is moderate. Value of H2.2 indicate variables is very weak, while the value of H 2.2 indicate

**Table 9**

Hypothesis Statement			
Hypothesis	Statement	Sig	Remark
H 3.1	There is no significant association between promotional offers and Age	0.000	Hypothesis Rejected
H 3.2	There is no significant association between promotional offers and Gender	0.213	Hypothesis Accepted
H 3.3	There is no significant association between promotional offers and Education	0.000	Hypothesis Rejected
H 3.4	There is no significant association between promotional offers and Occupation	0.000	Hypothesis Rejected
H 3.5	There is no significant association between promotional offers and Family Annual Income	0.035	Hypothesis Rejected

As per table 9 Hypothesis H 3.1, H 3.3, H 3.4 & H 3.5 are rejected, as values is less than .05 which means that there is a significant association between variables. Cramer's V.H 3.2 is accepted which imply that there is no significant association existed between Gender and Promotional offers. The strength of association will be detected through

**Table 10**

Strength of association between variables		
Hypothesis	Association of Demographic factors with Price Influence	Cramers V
H 3.1	Strength of association between promotional offers and Age	0.382
H 3.3	Strength of association between promotional offers and Education	0.271
H 2.4	Strength of association between promotional offers and Occupation	0.296
H 2.5	Strength of association between promotional offers and Family Annual Income	0.193

As per table 10 Strength of association between age and promotional offer is very strong. While H 3.3 and 3.4 is moderately strong. A weak association is visible in H 3.5 based on a given value. reading suggest that the association between variables

**Table 11**

<b>Hypothesis Statement</b>			
<b>Hypothesis</b>	<b>Statement</b>	<b>Sig</b>	<b>Remark</b>
H 4.1	There is no significant association between promotion discount and Age	0.000	Hypothesis Rejected
H 4.2	There is no significant association between promotion discount and Gender	0.021	Hypothesis Rejected
H 4.3	There is no significant association between promotion discount and Education	0.000	Hypothesis Rejected
H 4.4	There is no significant association between promotion discount and Occupation	0.000	Hypothesis Rejected
H 4.5	There is no significant association between promotion discount and Family Annual Income	0.038	Hypothesis Rejected

At a 5% significance level table 11 reflects that discounts with all demographic factors. The strength of hypothesis H4.1 to H4.5 is rejected as value is less than association will be observed through Cramer's V. .05, thus there is an association between promotional

**Table 12**

<b>Strength of association between variables</b>		
<b>Hypothesis</b>	<b>Association of Demographic factors with Price Influence</b>	<b>Cramers V</b>
H 4.1	Strength of association between promotional discount and Age	0.282
H 4.2	Strength of association between promotional discount and Gender	0.142
H 4.3	Strength of association between promotional discount and Education	0.147
H 4.4	Strength of association between promotional discount and Occupation	0.213
H 4.5	Strength of association between promotional discount and Family Annual Income	0.111

As per table 12 value of Cramer's V for H 4.2, H4.3 and 4.4 indicates moderately strong association. The value of H 4.1 suggests that the association is strong. between variables is very weak, while the value of H

**Table 13**

<b>Hypothesis Statement</b>			
<b>Hypothesis</b>	<b>Statement</b>	<b>Sig</b>	<b>Remark</b>
H 5.1	There is no significant difference between mean of shopping mode and Age	0.000	Hypothesis Rejected
H 5.2	There is no significant difference between mean of shopping mode and Gender	0.110	Hypothesis Accepted
H 5.3	There is no significant difference between mean of shopping mode and Education	0.896	Hypothesis Accepted
H 5.4	There is no significant difference between mean of shopping mode and Occupation	0.168	Hypothesis Accepted
H 5.5	There is no significant difference between mean of shopping mode and Family Annual Income	0.001	Hypothesis Rejected

ANOVA was applied to know the relation between shopping mode with age and family annual income shopping mode with demographic variables. It was H5.2, H5.3 & H5.4 was accepted which implies that found that there is a significant difference between nothing is significant between variables.

**Table 13**

<b>Hypothesis Statement</b>			
<b>Hypothesis</b>	<b>Statement</b>	<b>Sig</b>	<b>Remark</b>
H 6.1	There is no significant difference between mean of price comparison mode and Age	0.000	Hypothesis Rejected
H 6.2	There is no significant difference between mean of price comparison and Gender	0.005	Hypothesis Accepted
H 6.3	There is no significant difference between mean of price comparison and Education	0.332	Hypothesis Accepted
H 6.4	There is no significant difference between mean of price comparison and Occupation	0.000	Hypothesis Rejected
H 6.5	There is no significant difference between mean of price comparison and Family Annual Income	0.493	Hypothesis Rejected

As per Table 12 H 6.1, H6.4 and H6.5 are rejected which means there is a significant difference lies between variables.

## 5. Conclusion

Quite interesting findings came out of this study. Respondents admitted that they like to spend more time while shopping, no matter whether it is online or offline. Further, Cramer V was applied to check the strength of association between shopping time and demographic variables which reflected that gender and shopping time has a strong association while age and occupation moderately influence the decision. Respondents clearly stated that they don't prefer low price brands, which means they looking for quality in products, although they like offers and discounts on products. Cramer V values reflect that age has a strong association with promotional offers, which means it influences the decision making while education and occupation of a person have a moderate association. Similarly, age has a strong association with promotional discounts that means different ages may influence the decision making on the final purchase of a product while occupation may moderately influence the decision. Age and annual income may have significant relation with a mode of shopping decision, while price comparison is more related to age occupation and annual income, and has nothing to do with gender and education of a person. The main objective of this research was to study

the association of various demographic variables with selected variants of consumer buying behaviour was met. Findings will help stakeholders in taking strategic decisions. The second objective of this research was to study the demographic influence on Shopping time, pricing, offers & Discounts. It was observed that few demographic factors influence these factors.

### 5.1 Limitations of Study

1. The geographical area is restricted to Tier II, and Tier III cities of MP can be studied to generalise the findings
2. Non-probabilistic convenience sampling and snowball sampling used to collect data is although widely used, but data can be biased and less accurate
3. Respondent's lack of conscientious responses may sometimes affect the accuracy of the study
4. The sampling selection is less diverse in terms of family annual income.
5. The time of data collection is during COVID period so it may have some biases.

### 5.2 Further Study

This study can be extended and further explored by including other demographic factors like Marital Status, Religion, & Type of City and with other dependent factors.

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# Capital Structure and Value of Firm: An Empirical Study of S&P BSE SENSEX-30 Companies

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**Abstract :** For more than sixty years, the association between capital structure and the firm's value has been an academic issue. Still, no theoretical framework on capital structure is thriving to provide a satisfactory and conclusive answer to this relationship. The present study aims to enhance the research on the impact of capital structure on the firm's value taking data of 30 financially good constituent companies of S&P BSE SENSEX over the sample period of 2013-2021. The study employs panel data analysis using Pooled ordinary least squares model, Panel fixed-effect model, and Panel random effect model to establish the relationship between capital structure and value of the firm. The results affirm the existence of Modigliani & Miller (1958) irrelevance theory indicating no significant impact of capital structure on the firm's value. The findings have important implications for investors in these firms seeking to make prudent investment choices.

**Keywords:** Capital structure, MM Hypothesis, Hausman Test, Random Effect Model

## I. INTRODUCTION

Academics and financial professionals have long been fascinated by the link between capital structure and corporate value. The primary objective of deciding a firm's capital structure is to find an appropriate combination of debt and equity that helps maximize the firm's value. Besides, the introduction of debt in capital structure also helps in magnifying the returns of equity shareholders. Durand (1952) and Modigliani & Miller's (1958) pioneering publications set the

theoretical groundwork and instilled study into the link between capital structure and firm value. Durand (1952) proposed two extreme views on the relationship between capital structure and the firm's value. Under Net Income Approach by increasing the usage of debt in the capital structure, the cost of capital drops and the firm's value improves under the postulation of constant cost of debt and equity. The Net Operating Income approach demonstrated that when the debt-to-equity ratio is modified, the firm's value and cost of capital stay same, since the cost of equity grows with the degree of leverage and the advantages of cheaper debt capital are countered by the rising cost of equity. According to Modigliani and Miller's (1958) irrelevance theory (MM hypothesis), in a flawless and frictionless market with no corporation taxes, no trading costs, and no default risk, a firm's market value stays constant regardless of the proportion of debt and equity in its capital structure.

Due to the MM hypothesis's omission of the reality of an imperfect market with corporation taxes, bankruptcy costs, and transaction costs, other hypotheses arose to account for the influence of these market flaws on a firm's capital structure choice and value. To be more precise, the classic approach (Solomon, 1963), the trade-off theory (Kraus & Litzenberger, 1973), the agency theory (Jensen & Meckling, 1976), the Pecking order theory (Myers, 1984; Myers & Majluf, 1984), and the market timing theory (Baker & Wurglar, 2002) were established to explain the importance of capital

structure decisions to firm value. Solomon (1963) stated that a prudent balance of equity and debt in the capital structure might boost the firm's worth. According to Kraus and Litzenberger (1973), the best debt-equity ratio indicates a trade-off between the tax advantages of debt and the cost of insolvency. Greater leverage raises the chance of a business declaring bankruptcy, resulting in increased bankruptcy expenditures. This rising bankruptcy cost eventually cancels out the tax savings associated with a high debt-to-capital ratio. Jensen and Meckling (1976) suggested that managers' objectives are not fully aligned with those of shareholders, and that agency costs occur as a result of owners' monitoring expenditures and managers' imprudent use of free cash flows. Thus, the optimal capital structure can only be found by weighing the benefits of debt financing against the agency costs associated with debt financing.

Myers & Majluf (1984) and Myers (1984) developed the pecking order concept, suggesting that insiders are obliged to issue exorbitantly priced shares. They are aware, however, that selling such securities would trigger a negative market reaction, since rational investors without inside information would depreciate the firm's freshly issued shares. As a consequence, organizations often adhere to a hierarchy: they first use internal resources wherever possible; next they obtain external loans; and last, they issue external shares. This hypothesis implies that profitable organizations borrow less, whereas unprofitable enterprises rely more on external finance, generating more debt. According to Baker & Wurglar (2002), enterprises choose their funding source depending on the relative costs of debt and equity. If the cost of equity is less than the cost of debt, the corporation will issue equity. They argued that such businesses are low-leverage and received capital at a time when their market values were high. Thus, the market value of equity is crucial when determining the capital structure. With these conceptual approaches in mind, much empirical research has been performed to ascertain the link between capital structure and business

value, with conflicting results. On the one hand, multiple empirical studies reveal a negative association between leverage and profitability, which is consistent with the expectations of pecking order theory (Rajan & Zingales, 1995; Wald, 1999; Huang & Song, 2006; Oino & Ukaegbu, 2015). Berger & Bonaccorsi di Patti (2006), on the other hand, establish a positive association between leverage and profitability. Additionally, Danis et al. (2014) imply a positive relationship between profitability and leverage when enterprises are at or towards their optimal level of leverage and a negative relationship when firms do not adjust their capital structures.

The present study aims to analyze the impact of capital structure on firm value using a sample of 30 constituent companies of S&P BSE SENSEX listed on the Bombay Stock Exchange (BSE) for the sample period 2013-2021. The research is divided into five portions, one of which being the current one. Section II summarizes the existing literature on the effect of capital structure on a business firm's value. Section III discusses the paper's data and methods. Section IV summarizes the empirical results, and Section V brings the research to a close.

## LITERATURE REVIEW

Contradictory empirical evidence exists about the link between capital structure and corporate value.; the impact of leverage on performance has been determined to be either positive, negative, or negligible. The first classification reveals that company leverage is proportionate to and directly related to firm value, implying that leverage has a good effect on business performance and is consistent across all debt levels (Roden & Lewellen, 1995; Margaritis & Psillaki, 2010; Cheng & Tzeng, 2011; Maxwell & Kehinde, 2012; Adair & Adaskou, 2015; Jouida, 2017). Aprilyani et al. (2021), in their study, observed that a substantial impact exists between the independent factors and firm value concurrently. Leverage and profitability both have a considerable positive influence on company

value. The second group provides a linear, but indirect, the link between leverage and company value, i.e., the firm leverage coefficient is negative and constant across all debt levels (Kinsman & Newman, 1998; Krishnan & Moyer, 1997; Rao et al., 2007; Onaolapo & Kajola, 2010; Khan, 2012; Soumadi & Hayajneh, 2012; Mwangi et al., 2014, Le & Phan, 2017; Ilhan Dalci, 2018). Cai & Zhang (2011) and Vo & Ellis (2016) demonstrate that variations in financial leverage have a detrimental effect on stock returns. Additionally, they discover that only enterprises with minimal leverage likely generate value for shareholders.

Likewise, Giroud et al. (2012) demonstrated that decreasing leverage enhances performance. On the other hand, Antoniou et al. (2008) demonstrate that there is a negative correlation between financial debt and efficiency. However, Connelly et al. (2012) discover that change in leverage does not affect business performance as assessed by Tobin's q. The third category demonstrates a non-linear asymmetrical connection between financial leverage and corporate performance. According to this research, there is an ideal amount of debt beyond which increasing debt does not add value to the organization but increases the risk (Cheng et al., 2010; Lin & Chang, 2011; Ahmad & Abdul-Rahim, 2013). Coricelli et al. (2012), for example, reveal that the positive association between leverage and overall productivity growth maintains up to a crucial threshold and then reverses to a negative association.

Additionally, financial leverage is positively correlated with growth. Lang et al. (1996) discovered a negative correlation between leverage and future growth. In other words, organizations with more debt seem to have lower projected growth rates in the future. Few empirical studies identified a lack of clear evidence about the link between firm value and leverage (Ahmed & Afza, 2019). Al-Slehat (2019), in his research, discovered that

financial leverage had no influence on firm value and had an inverse relation with Tobin's q scale. Ibhagui & Olokoyo (2018) suggested that the effect and direction of the relationship between leverage and firm performance are yet unknown. Methodological problems, model misspecifications, and, most crucially, institutional inequalities contribute to empirical findings' vagueness and inconsistencies. We further the consensus-building process by examining the relationship between leverage and firm value in India. The extant research on financial leverage in economies confirms that it has an ambiguous or mixed relationship with the firm's value. As a result of these ambiguous results, the current research firm's value is a relationship between enterprises' financing strategies and the S&P BSE SENSEX firms in India. To address the study issues, we employed a panel of 30 business enterprises listed on the S&P BSE SENSEX BSE from 2013 to 2021, during which the available literature on the relationship between the two is still sparse in the context of India, which is an emerging economy.

## II. DATA AND METHODOLOGY

To examine the relationship between the capital structure and value of the firm, the study extracted financial data of the 30 largest and financially sound companies listed on the Bombay Stock Exchange (BSE) constituting the S&P BSE SENSEX index from the Centre for Monitoring Indian Economy (CMIE) - Prowess financial database - for the sample period 2013-2021.

The financial variables considered for regression in the present study are defined as follows:

### i. Dependent Variable

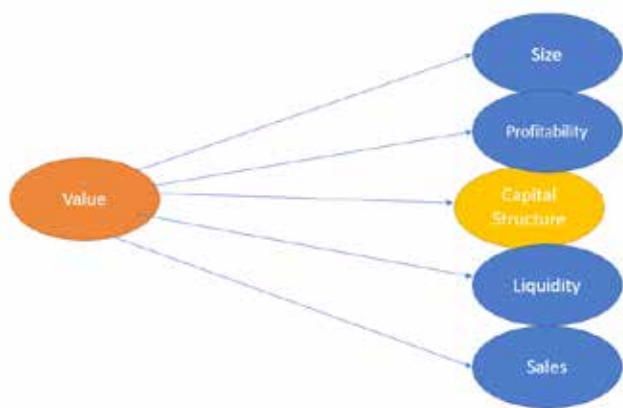
- a. *Value of the Firm*: The value of the firm is associated with operating profitability; therefore, the value is taken as the ratio of profits from operations to total assets

**ii. Explanatory Variable:**

- a. *Capital Structure*: As a proxy of capital structure, the present study employs the firm's Debt/Equity Ratio, defined as the amount of debt used to finance its assets, to the amount of shareholders' equity in total capitalization.

**iii. Control Variables:**

- a. *Profitability*: Return on Capital Employed (ROCE) is taken to measure profitability.
- b. *Liquidity*: The current ratio of companies is taken as a measure of liquidity—the companies having good liquidity position use more internal funds external debts.
- c. *Sales*: The operating profitability depends on the sales, and rising sales indicates that the firm may generate internal funds requiring less debt financing. Therefore, sales are also considered a control variable.
- d. *Size*: The natural logarithm of total assets is taken to measure firm size.



**Figure 1: Financial Variables of Panel Regression Equation**

Based on dependent variables, explanatory variables and control variables, the panel regression equation with intercept can be specified as follows:

$$Value_{it} = \alpha + \beta_1(Debt - Equity Ratio)_{it} + \beta_2(Liquidity)_{it} + \beta_3(Profitability)_{it} + \beta_4(Sales)_{it} + \beta_5(Size)_{it} + \epsilon_{it}$$

In the above equation, 'i' is used for cross-section units, 't' for the time-series element, 'α' is a constant term representing intercept 'β' is the coefficient.

In the present study, the longitudinal data of various financial variables of 30 companies of S&P BSE SENSEX across time (2013-2021) is taken for adopting the panel data analysis. A panel least square regression is run to establish a causal relationship between the capital structure and the firm's value and four control variables, namely, Liquidity, Profitability, Sales and Size. First of all, all the observations are pooled together to run the Panel Ordinary Least Square (Pooled OLS) model neglecting the heterogeneity of companies belonging to different sectors of the economy and denying the time-series nature of data. However, the homogeneity assumption for all the 30 companies is not valid. Therefore, the Breusch-Pagan (1979) Lagrange Multiplier test (BP-LM test) is applied to the results of Pooled OLS to check the validity of results, i.e., to check the need to move Random Effect Model (REM)/ Fixed Effect Model (FEM)? When the results of the BP-LM test reject the null of no random effect, the Random Effect Model and Fixed Effect Model are applied separately on data to run panel regression. FEM accommodates for variability across 30 firms by requiring that each firm have an intercept value, which does not fluctuate over time. In REM, the 30 firms evaluated will have a common mean intercept value. Finally, the Hausman Test (1978) is used to compare the null hypothesis "Random Effect model is acceptable" to the alternative hypothesis "Fixed Effect model is appropriate." The paper discusses the outcomes of all three models (Pooled OLS, REM, and FEM).]



### III. EMPIRICAL FINDINGS

The descriptive statistics in Table 1 summarize the main financial factors examined for panel data regression. It displays the mean, median, maximum, minimum, standard deviation, skewness, and kurtosis values for the variables. None of the financial variables exhibit

normal distribution features. By and large, the mean value of all variables is different than zero, the standard deviation is much away from one, and positive skewness and fat tails are visible. As a result, the Jarque-Bera test ( $p\text{-value} < 0.05$ ) rejects the null hypothesis that all variables are normally distributed.

**Table 1: Descriptive Statistics of Panel data**

	VALUE	D_E_RATIO	LIQUIDITY	PROFIDABLITY	SALES	SIZE
Mean	0.093740	19.39843	2.477154	15.14773	455177.8	5.825016
Median	0.060655	0.335710	1.376449	10.38337	292574.0	5.802038
Maximum	0.338066	472.2948	68.96328	132.1518	4013020.	7.596750
Minimum	-0.193074	0.000000	0.000000	-13.65643	55.30000	4.177767
Std. Dev.	0.090952	65.25416	6.208592	18.82389	678038.9	0.704862
Skewness	0.728068	4.963156	7.450374	3.257751	3.709294	0.159766
Kurtosis	3.078954	28.46979	68.38523	16.92510	17.58497	2.520017
Jarque-Bera	23.92386	8406.468	50594.18	2659.051	2354.029	3.740451
Probablity	0.000006	0.000000	0.000000	0.000000	0.000000	0.154089
Observation	270	270	270	270	270	270

Table 2 presents the Pearson's correlations between various financial variables. The results reveal that

correlation between various variables to be below 0.5. Therefore, multicollinearity is not a matter of concern.

**Table 2: Correlation Matrix**

	VALUE	D_E_RATIO	LIQUIDITY	PROFIDABLITY	SALES	SIZE
VALUE	1.000000					
D_E_RATIO	-0.261328	1.000000				
LIQUIDITY	0.035252	-0.106876	1.000000			
PROFIDABLITY	0.545809	5.23E-25	0.012899	1.000000		
SALES	-0.062551	-0.047145	-0.101504	0.075681	1.000000	
SIZE	-0.382022	0.312186	-0.333072	0.055046	0.422341	1.000000

The results of Panel Ordinary Least Squares regression done on the data of 30 firms are given in Table 3. The findings indicate that capital structure, as measured by the debt/equity ratio, has a negative and substantial effect on the firm's value. Additionally, the data indicate that liquidity and size have a negative and minor

influence on the firm's worth. Other control factors, such as profitability and sales, have a considerable positive effect on the firm's value. The reported F-statistic (43.17369) with a p-value (0.0000) indicate the model is fitted well. The adjusted R-squared value is moderate (0.512912), implying only about fifty-

one per cent variance in the firm's value is explained by the model. These results indicate that if we ignore the heterogeneity across companies and time, the firm's value is negatively associated with the degree of leverage and liquidity and positively associated with

profitability, sales and size. However, the assumption of homogeneity is not realistic. Therefore, the Breusch-Pagan LM test will be conducted to determine the validity of Pooled OLS results.

**Table 3: Pooled OLS Results**

Dependent Variable: VALUE				
Method: Pooled Ordinary Least Squares				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	0.504391	0.055596	9.072482	0.0000
D_E_Ratio	-0.000192	8.75E-05	-2.191294	0.0296
LIQUIDITY	-0.001784	0.000689	-2.587893	0.0103
PROFITABILITY	0.002518	0.000218	11.54234	0.0000
SALES	1.77E-08	8.02E-09	2.212737	0.0280
SIZE	-0.076111	0.010175	-7.479865	0.0000
R-Squared	0.512912	F-Statistic		43.17369
Adjusted R-Squared	0.501032	Prob.(F-Statistic)		0.000000

The results of Breusch-Pagan LM are reported in Table 4. The test results demonstrate strong signals of one-sided cross-section random effects as reported LM statistics (461.5344) is significant with a p-value of 0.0000. However, one-sided time-specific random

effects could not be established. Therefore, the null hypothesis of the null of no panel effect is rejected, implying the Pooled OLS is not valid. Therefore, the empirical analysis applies the Random Effect and Fixed Effect models.

**Table 4: Breusch-Pagan LM Test Results**

BP Langrange multiplier (LM) test for panel date			
Null (no rand. effect)	Cross section	Period	Both
Alternative	One-sided	One-sided	
<b>Breusch-Pagan</b>	461.5344	2.771614	464.3060
	(0.0000)	(0.0959)	(0.0000)

The findings of the cross-section Fixed Effect Model are shown in Table 5. The positive insignificant coefficient of the debt/equity ratio implies that there is no link between capital structure and company value. Similarly, insignificant coefficient of sales shows no effect on firm value, and liquidity to have a negligible negative influence on firm value. Profitability has a large

positive effect on the value of a business, but size has a considerable negative effect on value. The F-statistic (57.29701) with a p-value (0.0000) indicate the model is appropriate with panel data of S&P BSE SENSEX-30 companies. The significant value (0.882440) of adjusted R-squared suggests the model explicates approximately eighty-eight per cent variation in the firm's value.

**Table 5: Fixed Effect Model Results**

Dependent Variable: VALUE				
Method: Panel Least Squares (Cross section fixed effects)				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	0.462246	0.089721	5.152023	0.0000
D_E_Ratio	1.53E-05	6.40E-05	0.239449	0.8110
LIQUIDITY	-0.000780	0.000435	-1.791226	0.0749
PROFITABILITY	0.001942	0.000291	6.6823273	0.0000
SALES	8.00E-09	1.68E-08	0.475246	0.6352
SIZE	-0.067381	0.016539	-4.074164	0.0001
R-Squared	0.898114	F-Statistic		57.29701
Adjusted R-Squared	0.882440	Prob.(F-Statistic)		0.000000

Table 6 gives the results of the cross-section Random Effect Model. The results disclose a positive insignificant coefficient of debt/equity ratio, inferring that the firm's value is independent of capital structure. The control variables liquidity and size were found to negatively correlate with the firm's value at 10% and 5% levels, respectively. The positive and significant

impact of profitability and positive and insignificant impact of sales on the value is apparent from the results. The adjusted R-squared value (0.259978) describes that about twenty-five per cent variance in the firm's value is explained by the model, and reported F-statistic (15.75509) at a p-value of 0.000 suggests that Random Effect Model is fitted well.

**Table 6: Random Effect Model Results**

Dependent Variable: VALUE				
Method: Panel EGLS (Cross section random effects)				
Variable	Coefficient	Std. Error	T-Statistic	Prob.
C	0.0486230	0.076994	6.315196	0.0000
D_E_Ratio	3.13E-06	6.22E-05	0.050243	0.9600
LIQUIDITY	-0.000830	0.000431	-1.925041	0.0556
PROFITABILITY	0.002036	0.000266	7.650474	0.0000
SALES	1.32E-08	1.34E-08	0.978581	0.3289
SIZE	-0.072330	0.013937	-5.189801	0.0000
R-Squared	0.277598	F-Statistic		15.75509
Adjusted R-Squared	0.259978	Prob.(F-Statistic)		0.000000

Lastly, to check which model is a more appropriate model for panel data under consideration, the Hausman test is conducted to check that the null hypothesis of "REM is appropriate" contradicts the alternative hypothesis of "FEM is appropriate.". The results of the Hausman test are shown in Table 7. The results of the

test accept the null hypothesis "REM is appropriate" since the observed Chi-Square Statistic (2.932529) is insignificant with a p-value (2.932529) more than 0.05. Therefore, Random Effect Model turned out to be the most appropriate model for the panel data under consideration.

**Table 7: Hausman Test Results**

<b>Correlated Random Effects-Hauman Test</b>			
Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.932529	5	0.7104

The above empirical data indicate evidences matching with Modigliani and Miller (1958) irrelevance hypothesis i.e., the value of a corporation is not reliant on its capital structure. The control variables are connected with the firm's value in diverse ways. The firm's value is positively related to the profitability (i.e., returns on capital employed) of a company means that as profitability increases, the value of the firm increases. Further, the firm's value is also having a negative association with firm size, i.e., as the firm size increases, the value of the firm decreases and vice versa. The firms' sales are having an insignificant impact on the firm's value. Finally, there is evidence of some significant but negative impact of liquidity on a firm's value.

#### IV. CONCLUSION

The current research examines the link between capital structure and firm value. The sample consists of the 30 largest and financially healthy firms listed on the Bombay Stock Exchange, constituting the S&P BSE SENSEX index between 2013 and 2021. We utilized Pooled OLS, random effect model and fixed effect model in the study. The Hausman test established that the "random effect model" is the most suitable for data under consideration. The study's central premise is that capital structure choices are perplexing, convoluted, and difficult to assess without considering the interplay of their key drivers (profitability and debt/equity ratio). Numerous theoretical and empirical research has produced inconsistent conclusions. Thus, it is required to investigate the interaction impact of profitability and debt/equity ratio on company value as a combined factor

to capture the probable concurrent influence of both variables on firm value. The empirical findings indicate that the deb/equity ratio as a metric of capital structure combination does not affect the firm value of Indian enterprises (Modigliani and Miller, 1958). The study's results give practitioners crucial financial insights and policy consequences. The debt and equity combination in capital structure is a crucial problem that must be taken carefully in a company's accounts. Even though results could not establish a significant relationship between capital structure and the firm's value yet, financial managers should seek momentum and consistent profitability, liquidity, sales, size, and growth patterns to impact business value favourably. Present and potential investors may evaluate a company's entire financial situation without concentrating only on debt-equity combination in capital structure.

Despite its importance, the study has significant shortcomings that must be addressed in further research. To begin, empirical research on the impact of financial leverage on firm profitability has been undertaken up to the current day using secondary sources of data. To have a better understanding of the relationship between the two in India, the emphasis must be shifted away from secondary sources and toward survey data. This may aid in better understanding managers' perspectives on debt financing and give insight into managerial decisions. The questionnaire research may not only add to an academic concept of leverage-profitability, but it may also assist management in developing an ideal capital framework that supports more accurate information to possible stakeholders in the area. The questionnaire survey will help to confirm the present study's conclusions.

Second, a significant proportion of private-owned firms and small- to medium-sized enterprises are not listed on the BSE. Their funding pattern is distinct from that of publicly traded companies. As a result, it is critical to investigate such firms for future study, as they have been mainly overlooked in capital structure-firm performance studies. Additionally, a comparative analysis of publicly traded and unlisted enterprises may provide intriguing data. Third, this research is primarily concerned with determining the effect of capital structure proxied through debt/equity ratio with certain other financial variables as control variables on a firm's value. Additional variables such as macroeconomic factors (inflation, currency rates), intensity of competition, corporate reporting considerations, and business strategy may all influence the link between capital structure and firm value (Jermias, 2008), and alternative financing sources (Parthiban et al., 2008), their impact on interconnection of capital structure and firm value may be considered.

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# Whistleblower Protection Legislation in India: A Critical Analysis

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**Abstract :** *Whistleblowers are an important cog in the machinery of corporate governance mechanisms to prevent frauds and reports corruption both in the public and private sectors. Across the globe, international conventions, regional agreements and various civil societies have played the pertinent role to advocate issues related to whistleblower protection. Many international agreements have been signed among the member States of various countries to adopt the required legislation. Over the years, India's Whistle Blowing Protection Act, 2014 has evolved to address the emerging challenges in the public sector. This paper discusses the international and regional agreements and identifies the role of civil society concerning whistleblower protection. This paper then explores the existing legislation in India based on the review of various committee reports, statutes, Bills and published articles in journals.*

**Keywords:** *Whistleblowing, Corporate governance, International convention, Regional agreement, whistleblower protection*

**“Protecting whistle-blowers in law and in practice is finally being recognised and understood for what it really is: democracy as a nation”**

**-Anna Myers, Executive Director of WIN**

## 1. INTRODUCTION

Whistleblowers are critical in uncovering wrongdoings related to corruption, scams, financial mismanagement and other related activities that endanger public health and safety, human rights in the violations of law (Transparency International 2012). Recent researches have examined the importance of whistleblowing as one of the governance mechanisms to detect fraud and wrongdoing in the public and private sector (Eigen 2003; Hansen 2011; Chen 2018). This is

further indicated by the fact that significant worldwide organisations are calling for the implementation of whistleblowing policies and procedures (OECD 2017). It takes courage to risk one's career and reputation by becoming a whistleblower, yet retired FBI agent Colean Rowley chose to speak after the terrorist attacks on September 11, 2001, detailing the mishandling of the intelligence gathered by her team. Time Magazine named her Person of the year in 2002, along with fellow whistleblowers Cynthia Coopers of World Com and Sharron Watkins of Enron. International Court of Justice also recognised the courage of whistleblowers to uncover murky corporate financial practices of Luxleaks in 2014, Panama Papers in 2016 and Paradise Papers in 2017. Ganapini & Rick (2019) analysed the Proposal for a Whistleblower Protection Directive to safeguard the whistleblowers in European Union in the wake of scandals such as Cambridge Analytica and Dieselgate. Roziere, a French member of the European Parliament, also rued whistle-blowers' susceptibility, “.....recent scandals such as Lux Leaks, Panama papers and Football Leaks have helped to shine a light on the precariousness that whistle-blowers suffer today”.

Many countries have agreed in principle to enact whistleblower protection laws through international conventions, recognising the importance of whistleblowing in anti-corruption endeavours. And, as time goes on, there are even more governments, conglomerates and non-profit global organizations which are making concerted efforts to implement procedures for whistleblowers protection. Over the period, international organisations such as OECD and regional alliances such as G-20 have come together

for developing whistleblower policies to ensure that whistleblowers receive adequate protection. The understanding of present legal frameworks provided by academia and researchers yield critical inputs to government officials to improve the implementation of existing laws (Transparency International 2012). In the same background, this article has three main objectives. First, to identify the existing international conventions and regional agreements on whistleblower protection across the globe. Secondly, to understand the role of civil society in the protection of whistleblowers. Thirdly, this article will explore the legal protection provided to whistleblowers in India and understand the shortcomings in the enactment of legislation.

## 2. METHODOLOGY

An extensive literature review has been conducted by the researcher on the various whistle-blowing legislation and agreements, existing worldwide, including India. The study was based on secondary sources of data such as international agreements, regional conventions and published secondary sources. The review was done to develop the understanding of protection provided to whistleblowers against retaliation. The relevant sources of data are official documents and statutes such as:

1. The Limited Liability Partnership Act, 2008
2. The Public Interest Disclosure and Protection to Persons Making the Disclosures Bill, 2010; which was later named as The Whistleblowers' Protection Bill, 2011 by the standing committee.
3. The Companies Act, 2013
4. Whistle Blowers Protection Act, 2014
5. The OECD (Organisation for Economic Cooperation & Development) Convention, 1960
6. The United Nations Convention Against Corruption, 2003
7. The CII Code of Corporate Governance, 1998
8. The Naresh Chandra Committee Report, 2002
9. The N.R. Narayana Murthy Committee Report, 2003
10. Law Commission of India Report, 2001 and 2006

The academic literature was also sourced from various research papers published in journals, online articles, committee reports, books and business newspapers.

### 2.1 What is Whistleblowing

In academia, there are numerous definitions of whistleblowing. Hirschman (1970) defined whistleblowing as an act of dissent in which employees choose to leave, voice their dissatisfaction, or show loyalty as compliance when confronted with degenerative behaviours in organisations. In 1971, Nader, a consumer activist in the United States justifies whistleblowing as an act of employee reporting about organisations involved in corrupt, unlawful, fraudulent, or harmful activities in the wider interests of the public. Miceli and Near (1984) came up with the term "whistleblowers" instead of prevalent words like "informers" and "snitchers". The researchers provided a comprehensive definition of whistleblowing as an act of disclosure by former or existing organization members concerning illegal, immoral or illegitimate acts of their employers, to persons or organizations with the purpose to initiate action. Whistleblowing International Network (WIN 2018) extends the scope of whistleblowing as an act of "public interest" related to abuse, corruption, fraud, and violations related to human rights. WIN advocates whistleblowing as citizens' fundamental right to free speech to express their thoughts and views and communicate information about any sort of wrongdoing. U4 Anti-Corruption Resource Centre (Gillies, 2009) identify the important features of whistleblowing among the various definitions as wrongdoings related to the workplace, involving unlawful, unethical practices, violations and maladministration, reported within the organisations or externally and involves public interest dimension.



### 3. WHISTLEBLOWING – REGULATORY FRAMEWORK

The need for the protection of whistleblowers has been recognised across the globe. Rothschild and Miethe (1999) identified different kinds of retaliation faced by the whistleblowers from their employees such as loss of a job or forced retirement, negative performance evaluations, criticism or avoidance by co-workers and blacklisting. Jos et al. (1989) survey of 161 whistle-blowers, 80% of whom were or are government employees found evidence of severe retaliation among the respondents including loss of job, harassment and demotions; physical, psychological, and family problems. However, the fear of retaliation makes the employees not to blow the whistle despite assuring the protection Miceli and Near (1984). Since the 1990s, many public law jurisdictions around the world have enacted or are committed to enacting their own laws to promote whistleblowing mechanisms and protect whistleblowers against retaliation. Over the years, many countries have passed Whistleblower protection legislation in the areas of common law, corporate law, labour laws and implementing financial regulations. US, UK, Australia, Canada, Italy, Japan, New Zealand, Romania, South Africa, Kenya, Nigeria, Ghana, Malaysia, China and India are leading examples of countries highlighting the need for protection of whistleblowers.

#### 3.1 International Agreements on WhistleBlowing

Many countries have enacted whistleblower protection laws through international conventions. This section examines recent developments in international agreements which led to the implementation and development of stronger whistleblowing laws. In 1998, OECD initiated law guidelines on public sector whistleblower protections and improving ethical conduct. The OECD's Anti-Bribery (2017) emphasise

the significance of whistleblower protection as required legal support from any retaliatory action for employees who make disclosures in good faith and on a sufficient basis about wrongdoing at their workplace.

#### The OECD Convention

The OECD is a treaty-based organization of 36 member countries, founded in 1961 with a “commitment to democratic government and the market economy”. In 1998, the OECD issued a *Recommendation on Improving Conduct in the Public Sector to encourage transparency and accountability* through “measures such as disclosure systems and recognition of the role of an active and independent media. The 2003 *Recommendation on Guidelines for Managing Conflict in the Public Sector* stipulates that States should establish explicit rules and processes for whistleblowing, and also take efforts to guarantee that persons who report violations in accordance with specified regulations are protected from retaliation. The guidelines for the protection of whistleblowers and the importance of whistleblowers to reduce corruption in the public services was highlighted in OECD's (2012) CleanGovBiz “Toolkit on Whistleblower Protection”.

#### United Nations Convention Against Corruption (UNCAC)

UNCAC is the only legally binding international anti-corruption multilateral treaty, entering into force in December 2005. In the past decade, whistleblower legislation has been signed and ratified by many countries including India. All of these countries have the UNCAC. About thirty UNCAC Coalition members have prepared reports to support advocacy for improvements in whistleblower protection. Article 32 of the UNCAC states that states must take necessary measures and offer adequate protection to witnesses and victims from potential retribution or intimidation. Articles 33 and 8 of the UNCAC call on member

States to (33) incorporate legal protections against any unjustified treatment for any person who reports in good faith and on reasonable grounds (8) to consider establishing measures and systems to facilitate reporting by public officials of any acts of corruption. It shows that Article 33 is optional whereas Article 32 provides for the appropriate measures to ensure mandatory protection from possible retaliation. Overall, UNCAC provisions on protection are essential to achieve the objectives and operationalization of whistleblower protection of witnesses in the member countries.

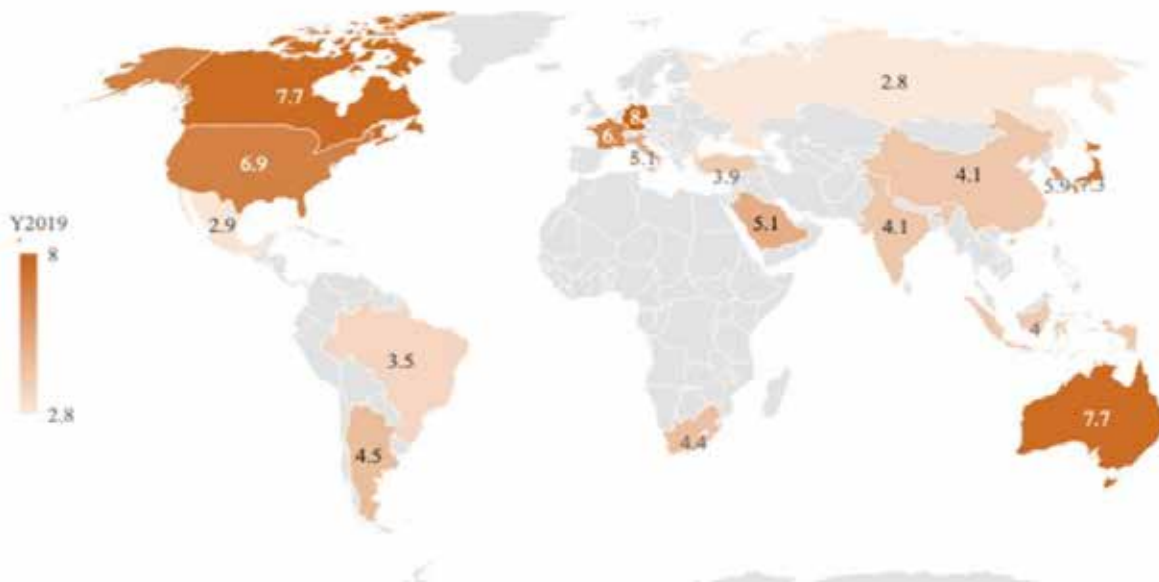
### 3.2 Regional Agreements

Another two regional agreements were created among the organizations of African states. First, the African Union Convention on Preventing and Combating Corruption (AUCC) was adopted in Maputo on 11 July 2003 to fight rampant political corruption of the African continent. As of 2018, the treaty had been ratified by 38 states and signed by 17 additional states. Clause 5 and Clause 6 provides for mandatory “Legislative and Other Measures” including provisions of whistleblowing, protection of witnesses and sanctions for false reporting. The Preamble of AUCC recognizes the detrimental effects of corruption on the stability of the country and whistleblowing as the mechanism to prevent it and encompass protection to its citizens. Second, the Southern African Development Community (SADC) is an inter-governmental organization headquartered in Gaborone, to further socio-economic cooperation and integration among 16 southern African countries. Article 4 of SADC (2001) Protocol against Corruption provides that each State member should take steps to strengthen mechanisms for safeguarding persons who identify fraudulent actions. The enforcement of these agreements encourages the development of anti-corruption policies in member states.

Group of States against Corruption (GRECO), has played a pivotal role in whistleblowing developments

in Europe. It was established in 1999 and comprises of the 50 Council of Member States (48 European States, Kazakhstan and the United States of America). It is a peer-reviewed mechanism and examined whistleblowing concerning public officials in the member states. In 2006, GRECO’s General Activity Report made recommendations for public officials to report corruption and also recommended its members to ensure enactment of protection laws against all types of retaliation (not only dismissal) and address the issues related to whistleblowing. On 30 April 2014, the Council of Europe issued a legal instrument containing 29 principles as guidelines for reviewing, introducing, and amending existing legislation regarding whistleblowing procedures. In November 2018, the European Parliament and the EU Council agreed on groundbreaking legislation to protect whistleblowers across Europe. The proposed legislation aims to encourage whistleblowers to report wrongdoing by protecting them from dismissal, demotion, or other forms of retaliation. The Group of Twenty (G20) is an international forum for the governments and central bank governors from 19 countries (including India) and the European Union. 2019 has already been a landmark year for whistleblower protection, declared as a priority in the G20 summit in Osaka, Japan. G20 Anti-Corruption Working Group Action Plan 2019-2021 will assess and identify best practices, implementation gaps and possible further protection measures as appropriate for the protection of whistleblowers, to strengthen and promote integrity and transparency in the public and private sector. In the year 2019, Transparency International scored G20 members on Corruption Index, indicating the concerted efforts being made by emerging economies. India also scored marginally better in its rank as compared to perception about corruption index rank. Fig 1 shows the score of G20 members based on the corruption index of Transparency International (2019).

Figure 1: Corruption Index of G20 countries based on TI (2019)

**Figure 1: Score of G20 Countries on Transparency International Corruption Index in 2019 (Out of 10)**

Source: Goyal, T.M.(2020). Data extracted from the Transparency International website, accessible at <https://www.transparency.org/en/cpi/2019/results>

### 3.3 Role of Civil Society

When a person becomes a whistleblower, they face retaliation at the workplace and a lack of support from colleagues and family. Moreover, they exposed themselves to the legal threats of imprisonment and fines due to the lack of understanding of the legislation. For example, in the LuxLeaks scandal, Deltour (2019) an employee at PricewaterhouseCoopers, discovered that large multinationals—including Pepsi, IKEA, and Deutsche Bank—were using the Luxembourg government to avoid their global tax obligation. He found himself without any protection because he had reported this wrongdoing directly to the media, something that was outside eligibility for whistleblower protections in France. Instead of being praised, however, Deltour was subjected to a trial and threatened with a possible 10-year prison sentence and €1 million fine—all for calling out wrongdoing

in the public interest. Deltour's case, alongside the release of the Panama Papers, revealed how the rich and the famous were able to exploit little-known offshore tax havens to avoid paying taxes at home. Rising to the occasion, an informal coalition of civil society mobilized over a quarter of a million European citizens to put pressure for an EU wide Directive for Whistleblower Protection.

Government Accountability Project (GAP), based in Washington, D.C., works with the United Nations, the World Bank, and other multilateral clients on whistleblowing issues. Project on Government Oversight (POGO), an independent watchdog organisation working with whistleblowers, journalists, and government officials for reforms in the area of whistleblowing. In the United Kingdom, Protect (formerly known as Public Concern at Work established in 1993), offers confidential consultation, assistance and services to other organisations voluntarily. The Whistler is a fellowship association between Compassion in Care and the Centre for

Investigative Journalism with the purpose to protect all whistleblowers. Canadians for Accountability and Federal Accountability Initiative for reform and Canadian based public-interest organizations that educate, promote and supports legislation to protect whistleblowers. The Whistleblowers International Network (WIN) was founded in 2006 by journalists to integrate and strengthen civil society organisations that support and defend whistleblowers. The EU Legislation follows campaigning by WIN, Transparency International Europe and journalists to become national law across all EU members by May 2021. It works with its members and affiliates

in over 35 countries across the world to develop civil society and safeguard public interest whistleblowers. Transparency International (TI) is an international non-governmental organisation which is based in Berlin, Germany and was founded in 1993. It publishes the Global Corruption Barometer and the Corruption Perception Index. TI collaborates with non-governmental organisations, labour unions, investigative journalists, and the media to raise public awareness about the importance of protecting whistleblowers from retaliation. Table 1 provides the list of various international organisations working worldwide in the field of whistleblower protection.

**TABLE 1: International organisations for WB Protection and its Objective**

Name of International Organization	Country Base	Main Purpose and Objective
Whistleblowing International Network (WIN)	Scotland	To provide a platform to share legal expertise, provide counsel to civil society organisations
National Whistleblower Centre	Washington, DC	To sponsor education and projects, create an online database of WB laws
The Government Accountability Project (GAP)	Washington, DC	To promote accountability of government and corporations, empower citizen activists
Transparency International	Berlin (HQ) and 100 national chapters around the world	To stop corruption and promote transparency
Digital Whistleblowing Fund	Italy	To support investigative journalism and grassroots human rights
The International Anti-Corruption Conference	Conference held by TI every two years	To bring together government, private sector and civil society
European Centre for Whistleblower Rights	Berlin	To help and advocacy of whistleblowers
Protect (earlier Public Concern at Work)	United Kingdom	To engage in policy work and public education, free online confidential
Open Democracy Advice Centre	South Africa	To promote transparency in democracy and educate citizens

Source: Authors' work

On April 1st, 2019, the Declaration of Valencia of Solidarity and Collaboration between Europe and Latin America for whistleblower protection was signed in Valencia. The success of civil society advocacy in Europe has aided in the development of effective and comprehensive legislation, both in the form of the EU Directive on Whistleblowing and in national jurisdictions. It demonstrates how collaboration and coordination among organisations based in different countries can strengthen the protection of those who disclose in the public interest.

#### 4. WHISTLE BLOWING POLICY FRAMEWORK IN INDIA

The deaths of whistle-blowers Satyendra Dubey (2003), an Indian Engineering Services officer serving as a project director for the National Highway Authority of India and Manjunath (2005), sales officer for the Indian Oil Corporation brought to limelight the wrongdoings and corruption in the public sector. Dr. Anand (2003) exposed the manipulations in the selection process for government colleges and jobs in VYAPAM and a series of suspicious deaths in the infamous disclosures highlighted the dangers faced by whistle-blowers in India. Shehla Mahsood, an RTI activist who lodged corruption complaints against officials involved in illicit diamond mining, was shot dead in Madhya Pradesh in August 2011. In the same year, journalist Ramesh Singla was killed in a road accident who exposed illegal mining in the state of Haryana. These sad incidents show that whistle-blowers are vulnerable even for the loss of life apart from physical violence and retaliation in the form of harassment and dismissal from the job. Vohra Committee (1993) report made several observations regarding the nexus among politicians, administration and criminals in India. In such a background, it becomes pertinent to formulate and enact stringent legislation. In the last two decades, several attempts have been made by the Government of India to protect individuals reporting corruption. Table 2 provides a snapshot of

the developments in whistleblower protection laws in India.

Table 2: Developments in WB Legislation in India

Year	Developments in WB protection Legislation
1998	CII Code of Corporate Governance
1999	Kumar Mangalam Birla Committee
2001	Law Commission of India drafted Bill
2002	Public Interest Disclosure (Protection of Informers) Act
2003	Law Commission recommended the adoption of the 2002 Act
2004	Government notified a resolution; CVC got the power to act on whistle-blowers complaints
2007	Administrative Reforms Commission: enact a law to protect Whistleblowers
2008	Limited Liability Partnership Act incorporated provisions to protect the interests of whistle-blowers.
2010	Public Interest Disclosure and Protection of Persons Making the Disclosures Bill, 2010 was introduced into the Lok Sabha.
2011	2010 Bill was renamed as Whistleblowers Protection Bill, 2011 by the Standing Committee on Personnel, Public Grievances, Law and Justice.
2013	Companies Act on Vigil Mechanism
2015	The Whistle Blowers Protection (Amendment) Bill was introduced and passed in Lok Sabha

Source: Author's Work

Securities and Exchange Board of India (SEBI) through amendments in Listing Obligations and Disclosure Requirements (LODR), required the disclosure of the existence of whistleblower policy in the annual report for all listed companies and its applicability. Clause 49 of the Listing Agreement provides for the formulation of Whistleblowing policy. It also provided to establish a Vigil Mechanism within the organisation and provide mechanisms for the protection of whistle-blowers. The Companies Act (2013) extended the ambit of corporate governance and requires that vigil mechanism should work through the audit committee. Section 177(9) makes it mandatory for all the listed companies, companies procuring deposits from the public companies and companies borrowing more than fifty crores from banks or public financial institutions.

The recommendations for specific laws for whistleblowing has been suggested in Kumar Mangalam Committee (Report in 1999), Naresh Chandra Committee (Report in 2002) and Murthy Committee (Report in 2003). The Law Commission of India drafted a Bill to protect whistleblowers in 2001. In 2003, on the recommendation of Naresh Chandra Committee and resolution passed by Cabinet in this regard, it was decided to set up SFIO (Serious Fraud Investigation Officer) under the Ministry of Corporate Affairs to address the cases related to economic frauds under various economic legislations. SIFO has been established as a multidisciplinary organisation consisting of experts from various fields for the detection and prosecution of white-collar frauds, as per the Companies Act, 2013. In 2004, the Public Interest Disclosure and Protection of Informers Resolution (PIDPIR) was established to facilitate the procedure of receiving written complaints regarding disclosures of corruption or misuse of federal government office or any related agency. The Central Vigilance Committee was authorised to receive such written complaints and keep the identity of the informant confidential.

In 2001, the Law Commission of India (179<sup>th</sup> Report) examined the issue of whistleblowing and made certain recommendations that were wider in scope than Whistleblowing Bill (2011).

In September 2010, Whistleblower Bill was placed in the Standing Committee of Parliament to invite suggestions from the public. The committee recommended the change of name to Whistleblower Protection Bill (2011), introduced and approved in Lok Sabha in December 2011. The Rajya Sabha approved the bill on 21 February 2014 without any changes. The Whistle Blowers Protection Act, 2014 lays down in detail the extent and commencement of the Act, various relevant definitions and requirements of public interest disclosure. It also provides for power and functions of Competent Authority on receiving disclosures and also matters that cannot be inquired by it. The Act also lays down the criteria for safeguards against victimisation, protection of complainant and witnesses identity and penalty imposed, if the identity is revealed. The WB Protection (Amendment) Bill, 2015 was introduced in Lok Sabha and prohibited the disclosure of specific 10 categories of public interest disclosures to a Competent Authority. However, these amendments were not passed in Rajya Sabha and hence, lapsed due to the 2019 general elections.

The Bill is not applied to wrongdoings in the private sector. It also excludes members of the armed forces and intelligent services from its purview. There is a need to provide detailed investigative procedures regarding complaints received, for example, the whistleblower should be informed about the investigation, final report submitted and corrective action taken. It also does not include the ambit of protection to external authorities whistleblowers, including the media. However, it provides for the burden of proof on the employer in the cases of victimisation of a whistleblower.

Table 3: Comparison of the Law Commission Report and the Whistleblowing Bill

	<b>Law Commission of India</b>	<b>Bill</b>
Scope	Disclosure can be against Ministers and Public Servants.	Disclosure can be only against Public Servant.
Definitions	Defines disclosure as a complaint against abuse or misuse of power commission of an offence under any law; or mal-administration. Defines 'Victimisation'	Defines disclosure as a complaint against a public servant for commission of an offence under the Prevention of Corruption Act, 1988 or misuse of power leading to demonstrable loss to the government or gain to the public servant; or a criminal offence. Does not define 'Victimisation'
Disclosure of Identity	The name of person making the disclosure shall be revealed to the public servant unless the complaint requests that his identity be kept hidden or it is necessary in public interest.	The Vigilance Commission shall not reveal the identity of the complainant the the Head of the Organisation except if it is of the opinion that it is necessary to do so.
Powers of Competent Authority	The Competent Authority has the power to direct the appropriate authority to initiate criminal proceedings against the guilty official.	The Vigilance Commission has the power to recommend measures such as initiating proceedings and taking steps to redress the loss to the government.
Time Limit	The competent Authority has to complete the inquiry within 6 month to 2 years after receiving the complaint.	No time limit prescribed for discreet inquiry. Time limit for explanation to be given by the concerned head of department shall be prescribed.
Burden of Proof	In case a complainant is victimised the burden of proof is on the employer or public servant who is accused of victimisation. The revarsal of burden of proof.	No provision
Penalty	Penalty for false complaints is imprisonments up to 3 years and fine of up to Rs. 50,000.	Penalty for false complaint is imprisonment up to 2 years and fine of up to Rs. 30,000.

Source: Goel, S. (2014)

## 5. CONCLUSION

This paper establishes the participative role of international organisations, civil society and governments as multistakeholders in tackling concerns related to whistle blowers protection. However, The Whistle Blower Protection Act (2014) is yet to be operationalised in the form of notification by Government of India. It is evident that all lacunae in the implementation of the Act should be upheld for the protection of whistle blowers in the public as well as the private sector. The laws and legislations mechanism for whistleblowers' protection should be strengthened for democracy. In the USA, the state laws allow for anonymous complaints whereas this Act does not permit submission and investigation of anonymous complaints. In India, all whistleblower complaints must be submitted to the Competent Authority, who is a senior member in the hierarchy, whereas the complaint must be made to independent investigators or arbitrators for investigation. Moreover, Whistle Blowers Protection Bill does not include the private sector in its purview and impose any penalty against the victimisation of the complainant. Still, National Stock Exchange received 3,508 whistle-blower complaints (in FY 2017-18) and 3,139 complaints in the previous year. The corporate governance practices need to be strengthened by the effective enactment of legislation related to whistleblower protection in India.

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# Diaspora Entrepreneurship- A New Impetus towards Building a Strong Start-Up Ecosystem

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**Abstract :** *Many countries are making efforts to attract Diaspora entrepreneurs aiming to set-up start-ups for their embedded advantages like innovation and creativity, and to help in employment generation in addition to the huge investment opportunities. This paper attempts to understand the uniqueness of Diasporas entrepreneurs and the state and evolution of the start-up ecosystem and gives insight into the Diasporas start-ups in India. To attract Diaspora start-ups to bring in creativity and innovation while facing challenges in achieving India's development and financial advancements forms the scope of the paper.*

*Although developing countries recognise the advantages of attracting Diaspora direct investors and entrepreneurs to their countries, they are struggling to succeed in their goal, especially those which have internal and external disturbances either due to civil society or foreign enemies. And if there are peaceful conditions, abhorrent tax laws, lack of local resources such as financing, and red-tapism and corruption act as huge deterrents for entrepreneurs from pursuing economic activities in such a country and compel them to rather find business opportunities somewhere else. This paper attempts to discuss Diaspora entrepreneurship and its nature, the environment that is best suited for Diaspora direct investment in countries of origin, and the effective strategies adopted by some countries to attract Diaspora entrepreneurs.*

**Key-Words:** *Diaspora, Diaspora entrepreneurs, Eco-system, Start-up*

## INTRODUCTION

The word Diasporas is derived from a Greek term 'diaspeirein' meaning dispersion. "Diaspora

communities have been explained to be dispersed from a centre to more than one place while preserving links, communication and relations with their original homeland" (House of Commons, 2004). Diaspora entrepreneurship refers to entrepreneurs who have their feet in two countries, home country also known as Country of Origin and host country often referred to as Country of Residence. They are able to develop their businesses by taking advantage of Diaspora policies by countries that are promoting entrepreneurship in their Diasporas. Regardless of the advantages brought in by Diaspora entrepreneurs, many developing countries have been struggling in attracting them. A number of studies have proved that the country of residence is benefited in terms of better products, new technology and higher job creation, with the inflow of high-skilled labour (Kerr, 2016; Hunt, 2010 and Bosetti, 2015). Salter (2015) argued that in almost all nations, the transient workers are by nature twice more enterprising in comparison to the local population.

Keeping in view the fact that there are not many diaspora entrepreneurs in India; therefore, this study has been undertaken to understand

- ◆ the state of diaspora entrepreneurs in India, their role towards the development of the start-up ecosystem in India and to analyse the challenges faced by the Diaspora entrepreneurs in India.

To better understand the contributions of the Diaspora entrepreneurs in the development of the economic system

of a country, several research efforts have already been fostered, yet the elements that make vital contributions in the development of a successful start-up ecosystem are poorly explored. Some studies have shown that the Diaspora entrepreneurs possess distinctive network structures and other capital structures that domestic entrepreneurs miss (Vertovec, 2004). Based on the literature available a few initial assumptions related to the role of Diaspora entrepreneurs in development of the start-up environment have been made.

- ◆ Diaspora Entrepreneurs acts as a bridge between Countries of Origin and Residence
- ◆ Diaspora Entrepreneurs bring unique human capital to Country of Residence
- ◆ Transnational social networks help entrepreneurs to cross fertilise the economic systems of both the countries.

For attaining the objectives of the research and test the assumptions stated above, information and data is gathered from the secondary sources. A number of studies (cited in the text) were analysed in detail, literature was thoroughly searched and various schemes announced by the Government of India were studied to understand the state of diaspora entrepreneurs in India.

The results so achieved are stated as ‘Recommendations’ and ‘Conclusion’.

### **DIASPORA ENTREPRENEURSHIP**

The word Diaspora initially was used to refer to the Jewish Diaspora but now it is being used to include any historical mass movement of people of common extraction (Ember, 2004). Various studies show that Diaspora entrepreneurs have been successfully contributing towards the development of the economic system. Yet, the relationship between Diaspora entrepreneurs and the start-up ecosystem is in its initial stages. Silicon Valley is one such example where roughly 50% of newly incorporated companies were founded by immigrant high-tech and engineering firms

in 2005 (OECD, 2010). Safran (1991) has characterised Diaspora entrepreneurs as individuals who are able to preserve a solid and enthusiastic relationship with their native country. Most recently many studies have been conducted to understand the role of Diaspora entrepreneurs in development of the start-up ecosystem of their home country through return movement (Riddle and Brinkerhoff, 2011; Kapur, 2001; Freinkman, 2000). Researchers Dalziel, 2008 and Hull, 2010 in their study explained the crucial position of immigrant entrepreneurs in the development of the US economy as they are often more pioneering, inventive and efficacious than the other native firms. Kloostermann(1999), attributes the ability of the Diaspora to bring in successful ideas to their mixed entrenchment in the shared networks of Diaspora. Rouse (1992) explains bi-focality as the ability of diasporans and their descendants to be able to have different perspectives to see the world. These unique characteristics of the Diaspora entrepreneurs provide them with a large pool of information, experience and information, which domestic entrepreneurs have no access to (Dalziel, 2008; Aliaga-Isla and Rialp, 2012;). Whereas the domestic entrepreneurs can make use of local networks only, using their vast network, diasporans are in a position to identify opportunities and maintain their motivation (Harima, 2014) using the support from people accessible to them. Despite being diffused across many nations, Diaspora entrepreneurs uphold an interest and relationship to their home country. Making full use of these advantages, Diaspora entrepreneurs identify entrepreneurial opportunities in a more successful way than their domestic counterparts.

### **START-UP ECOSYSTEM**

As ‘Start-up’ is a new term, there is no single definition of start-ups. “Start-ups, often tech-enabled, generally combine fast growth, high reliance on innovation of product, process and financing, utmost attention to new technological developments and extensive use of innovative business models, and often, collaborative platforms.” (EC, 2016). They usually create a novel

service or product, aimed at solving a problem. Therefore, it won't be wrong if we say that start-ups are fairly young companies still searching for their business model. A start-up ecosystem is an agglomeration of independent variables creating ideal conditions for entrepreneurial pursuits in high-growth businesses (Spilling, 1996; Stam, 2014; Mason and Brown, 2014).

Even though the terms 'start-up ecosystem' and 'entrepreneurial ecosystem' are being used interchangeably in the literature, there is a difference between these closely related terms. The term 'entrepreneurial ecosystem' consists of an environment including small and medium sized businesses to high-growth businesses whereas 'Start-up ecosystem' describes the favourable environment for high-growth businesses. Considering the differences, in our study we use the term 'start-up ecosystem', focusing on start-up companies. Novelty, commercial affluence and job creation are some of the outcomes of a successful start-up ecosystem (Mason and Brown, 2014). One such example of a successful start-up ecosystem is Silicon Valley.

A lot of research has been conducted on studying the impact of different factors on the development of the ecosystem, whereas the research on the factors in development of the startup ecosystem is still in its early stages. Fuerlinger (2015) commented that the state plays a critical part in setting the groundwork for the conception of an encouraging entrepreneurial environment by modelling the dogmatic environment. Kantis and Federico (2012) illustrated the government's steering role in providing venture capital. The state plays a dynamic part in the marketing of entrepreneurial culture (Kantis and Federico, 2012) by inducing social values and demeanours. Higher educational opportunities and institutes also act as another factor in the development of an ecosystem. Cultivating entrepreneurial mindsets through university action propel inventions and creativity (Hooi and Ling, 2012).

Other than the roles of the Government and educational institutions, the roles of drivers of economic development have once in a while been investigated to date. A parcel of endeavours has been identified studying environment meta-structures such as start-up communities (Van Weele, 2014; Cohen, 2006). Analysts have centred on the ways that native start-up communities offer bolster to entrepreneurs by contributing know-how and empowering and rejoicing the role models that enthuse new generations (Feld, 2012; Davidsson and Honig, 2003; Van Weele, 2014; Isenberg, 2010) and proclaims that entrepreneurship is a communal phenomenon (Anderson and Gaddefors, 2016). In spite of the fact that the past investigation offers a few important experiences into factors of the ecosystem, there is a need for a substantial relationship between the existence of a particular factor and its precise effect on development of the ecosystem. This inadequacy in past inquiries shoots from the need of a conventional structure, which makes it outlandish to equate the former discoveries. It is worth knowing here that a few researchers have endeavoured to create a conceptual model (ANDE, 2013; Isenberg, 2011; Ahmad and Hoffmann, 2007; Neck et al., 2004). However, these models endure from primarily two escape clauses i.e. inadequately hypothetical foundations and a need of a coherent structure. A model developed by Juling (2016) was the first model to reflect these shortcomings and illustrates the capital structures of entrepreneurial ecosystems (Lachmann, 1978; Foss and Klein, 2012). Our basic preposition that the variables of the ecosystem contribute specific assets to a start-up ecosystem is in accordance with the fundamental standards of the capital model (Juling, 2016), which testifies that an ecosystem entails amalgamation of various resources.

#### **CONTRIBUTIONS OF DIASPORA ENTREPRENEURS IN THE GROWTH OF START-UP ECOSYSTEM OF THE COUNTRY OF RESIDENCE**

Although the role of Diaspora entrepreneurs in

advancing the economy of the country of residence has been well studied, yet the study of its impact on the start-up ecosystem of the country of residence is still at its preliminary phase. Taking hints from the existing researches we can assume that Diaspora entrepreneurs play a critical part in the development of the capital structure within a start-up ecosystem. First, Diaspora entrepreneurs are instrumental in augmenting the prevailing human capital by bringing supplementary and distinctive human capital augmented with knowledge and technology to the country of residence from their country of origin. The advanced technology and knowledge brought in by the diasporans lead to increased competitiveness amongst the participants in the start-up scene of the country of residence. Meyer et al. (1997) argued that the fact that many diasporans acquire academic qualification and practical experiences in their home countries, which can be perceived as 'brain gain' to the country of residence's start-up ecosystems. Along with being academically qualified, Diaspora entrepreneurs are bi-focal in nature which gives them the capability to switch between different cultures and values. This gives the Diaspora entrepreneurs a chance to make use of business opportunities that go unnoticed by the local entrepreneurs (Harima, 2016). Secondly, Diasporas can access diverse networks in two countries (Elo, 2014; Kuznetsov, 2008). Social networks of the Diaspora entrepreneurs are useful in creating allies between ecosystems of both the countries. As commented by Safran (1991), the strong connections of the Diaspora in home as well as host country provide them with the ability to combine the economic capital in both countries. Also, it is a well established fact that to finance their businesses Diaspora entrepreneurs make use of social networks (Johannisson, 2000; Rath, 2002). Diaspora entrepreneurs are in a position to reinforce financial capital for their start-up through self-funding as well as from the country of origin through their strong social networks. Also, co-ethnic businesses are known to motivate Diaspora entrepreneurs to invest. As a result, Diaspora entrepreneurs easily use their

social networks to approach their investors. Diaspora entrepreneurs are also instrumental in reinforcing the cultural capital in the country of residence by influencing the start-up environment with their entrepreneurial mind set. Similarly, we can say that the Diaspora entrepreneurs have access to infrastructural capital in more than one country. Governmental policy support is also of utmost importance for regional entrepreneurial activities (Gilbert, 2004; Audretsch, 2007). Thus, we can say that Diaspora entrepreneurs are instrumental in capital interweaving by using their diverse social network in acquiring financial funding contributing towards expanding economical capital with the help of infrastructural and governmental support.

### **START-UP ECOSYSTEM OF INDIA**

The start-ups ecosystem consists of various stakeholders, other than the entrepreneurs including investors, service providers, educational and research institutions, and big companies. In India the Ministry of Commerce and Industry in Department of Industrial Policy and promotion (DIPP) in its notification dated 11 April 2018, has illustrated start-up as "an entity shall be considered as a start-up: i) Up to a period of ten years from the date of incorporation/ registration, if it is incorporated as a private limited company (as defined in the Companies Act, 2013) or registered as a partnership firm (registered under section 59 of the Partnership Act, 1932) or a limited liability partnership (under the Limited Liability Partnership Act, 2008) in India, ii) Turnover of the entity for any of the financial years since incorporation/ registration has not exceeded one hundred crore rupees, & iii) Entity is working towards innovation, development or improvement of products/ processes/ services, or if it is a scalable business model with a high potential of employment generation or wealth creation" (Source: <https://www.startupindia.gov.in/>).

The last two decades saw the evolution of the Indian start-up ecosystem, witnessing the entry of many more

participants providing support in different forms. In the late 90's, internet connectivity was non-existent and the support system was negligible. The next decade witnessed a change, and the market welcomed more start-ups. Some of them got settled while others left in infancy. One such initiative was made in 2009 by the Bangalore-based e-commerce start-up, known as Flipkart. The past decade has been witnessing a rapid evolution of the start-up ecosystem in India. Also India was ranked number two in being the best funded start-up hub in the world (Start-up Genome, 2015). The Government of India came up with the flagship initiative called "Start-up India", in the year 2016, with the prime focus to build a strong ecosystem for promoting and nurturing domestic start-ups which would lead to generation of employment opportunities and sustainable economic growth. Programs such as "Atal Innovation Mission", "Make in India", "Digital India" and "Skill India" are initiatives of the Indian government which have attracted Diaspora start-ups to invest in India. India has become one of the top destinations for start-ups. Although Bangalore has been successful in attracting a lot of Diaspora entrepreneurs, Delhi is also catching up faster in the race. Many more cities are attracting more foreigners to start-up their business as they see India as a country of vast opportunities. In the words of David Back, co-founder of Zoomcar "*what works abroad doesn't necessarily work in India, but a whole lot of other things do work in India. There are lots of opportunities to be tapped and there is scope of humongous growth in this country*".

India is a country having a large and fast-growing market, political stability as well as educated workforce. The Government of India is taking steps to ensure the ease of doing business in the country. Unsaturated markets provide a great opportunity to the Diaspora entrepreneurs to build a successful start-up business. Though Indian markets are not easy, and it usually takes around 4-5 years to experience high market growth, it has been seen that a number of Diaspora

entrepreneurs have entered in the service sector rather than the manufacturing sector. This is due to undue long processes for approval, commencement of business operations, land ownership procedures, difficulties in getting multiple clearances etc. despite of all these difficulties it is worth noting that if the Diaspora entrepreneurs are able to establish manufacturing units then it would add to not only employment opportunities but also investment venues.

**Figure 1. Levels of Commitment to Diaspora Entrepreneurship**



Source: [www.migrationpolicy.com](http://www.migrationpolicy.com)

Every entrepreneurial project has five levels of involvement. These levels of involvement or commitments start with networking, mentoring, training, investment, and end with venture capital and partnerships in the ascending manner (see Figure 1). While a combination of all five levels of engagement is likely to foster entrepreneurship, for a variety of reasons including availability of resources and time, and the different actors involved at each level, the more passive forms of support at the base of the pyramid are likely to proliferate and scatter more quickly than the more active forms of support near the top. Such organizations that support entrepreneurship among the Diaspora provide a wide range of services and are unique in many key ways.

## CHANGING LANDSCAPE OF THE START-UP ECOSYSTEM

Due to the existing differences in the corporate culture of India and the West, it has been visibly difficult for Diaspora entrepreneurs to survive in the country. To top it all, being a Diaspora start-up becomes all the more challenging in a country which is yet to develop a market model which is less regularised and less bureaucratic. Bureaucratic delays, frequent regulatory changes in certain sectors and lack of investor trust are a few factors that lead to dampening the spirits of the Diaspora entrepreneurs.. Although, the government is doing a great job to promote the image of the country and government organisations like the *Niti Aayog* are providing great support to the government in attracting the Diaspora entrepreneurs through these changes. A number of Diaspora start-ups have been established in India in recent years. A wide range of sectors such as e-commerce, food delivery, smart mobility, fashion, health and wellness etc. have seen the emergence of the Diaspora entrepreneurs. Despite several roadblocks, many foreign nationals have been successful in fulfilling their start-up ambitions in India. The past decade has witnessed rapid evolution of the start-up ecosystem of India. India's rank in "Ease of Doing Business Index" provided by the World Bank also improved from 130 in 2016 to 100 in the year 2017. Despite the advantages, it is surprising to know there are no specific policies to attract Diaspora start-ups in India, especially when promoting and attracting foreign investment to the country is what we want. The focus of the "Start-up India" initiative is primarily on encouraging and motivating the domestic start-ups and developing a robust start-up ecosystem. "Back in the 1990s when I came to India, it took me a year to get my company registered as a foreign national. Now it takes a matter of weeks," says Mikael Gislen. He moved to India from Sweden in 1994 and successfully runs Gislen Software, in Chennai. Diaspora entrepreneurs find it challenging to adapt to the culture mainly. A lot of Diaspora

entrepreneurs have moved back to their home countries failing to adjust to the cultural difference. According to one entrepreneur Moran, American people may be sceptical about venturing into Indian markets because of other infrastructural elements and traffic, and pollution and all of that," According to him another difficulty faced by them was communication barriers, predominantly verbal communication. Even though these difficulties pose a roadblock in the early stages of the start-up system, yet many diasporans have got a hang of it and succeeded in their start-up endeavours. As observed by start-up owner Greg Moran cited in Economic Times, most of the start-up owner's hail from an engineering background, having studied from the prestigious IIT's and NIT's, yet only a few have the knowledge or expertise in terms of business. According to him, engineers are good at producing innovative products like an app or something, but lack business knowledge. To understand the business economics, there is a need for a systematic approach, to take the venture to the next level. With the changing perceptions revolving around the Diaspora start-ups and increasing examples of successful diasporans, many more entrants can be seen in varied fields of operations. A large number of Diaspora start-ups have been observed in the food and beverages sector, where entrepreneurs set up restaurants and food supply chains.

## CHALLENGES FACED BY DIASPORA ENTREPRENEURS IN INDIAN START-UP ECOSYSTEM

There are typical challenges that start-ups face around the globe. Certain obstacles, however, are more peculiar to the Diaspora entrepreneurs starting a solo business. India traditionally had an image of being an unfavourable place to establish a business by Diaspora entrepreneurs due to a number of factors such as political instability, cultural diversity, bureaucratic and regulatory framework, and quality of life which pose hurdles like pollution, poverty, hygiene etc.

This section of the paper tries to understand the challenges faced by Diaspora entrepreneurs in the start-up ecosystem of the country. To begin with, many Diaspora entrepreneurs acknowledged difficulties in understanding the process of entering the Indian start-up market. Although the ‘Start-up India Hub’ portal aims at consolidating all the information on one website, yet many Diaspora entrepreneurs don’t find it user friendly. The website doesn’t provide information required by Diaspora entrepreneurs to start-up businesses in India. The ever-evolving government policies also result in lack of clarity. For example, the “Start-up India” policy is designed to help only domestic Indian Start-ups, whereas “Make-in India” policy focuses on attracting Diaspora entrepreneurs to manufacture in India whereas, most of the diasporans face impediments in recruiting and supervising a team, managing the customers and developing a showcase technique. Also, India does not have any policy for extending special visas for start-ups. Though the diasporans feel that the local skilled labour can be appointed at a lower cost, yet they often find it strenuous to get a workforce with the right skill or fail to understand the process of accessing the right skill. Therefore, they have to bring in people to train the locals. Although the Diaspora entrepreneurs are well equipped with technological and academic knowledge, the lack of business knowledge poses a great hurdle in the success of the start-up.

Most start-ups in their early stages are bootstrapped, i.e. they are self-funded through the founder’s capital or from borrowings from friends and family. Other start-ups become self-sustaining from the profits and revenues earned. Yet, running a successful transnational start-up requires a considerable amount of capital. Many Diaspora entrepreneurs plan to scale their business, for which they start searching for investors. However, even after receiving a positive response on their products and market validation, finding a right investor in the country of residence is a difficult job. In order to build a successful start-up, diasporans need to bridge

the information gap that exists between those who provide a product and those who use it. However, this is particularly difficult for the Diaspora entrepreneurs owing to the different culture, languages, ethnicities and religions. Also, the customers are equally diverse. Furthermore, there is a disconnect between the Diaspora start-up founders who are well-educated and come from different countries and the customers, for whom they aim to build products. Diaspora start-ups often have not enough understanding of the customers and their needs, attributable to the different living environments. Another big challenge for Diaspora entrepreneurial start-ups is to find markets for their products as Indian markets appear tough to make way into. This is because the markets are almost saturated with many already existing firms and more entering the market. Another reason why Diaspora entrepreneurs find it difficult to penetrate Indian markets is the disadvantage they face as compared to large companies. Larger companies are more competent in dealing with bureaucratic regulations, and the government also prefers to sign contracts with established companies due to their strong financial position. In the context of communication with the customers and retention of the customers, Diaspora entrepreneurs are at a back foot. Another issue faced by Diaspora start-ups is collection and timely payment for their products and services, especially when start-ups are not charging customers through digital means for payment. Majority of job seekers prefer to engage themselves with large companies, offering more stable jobs than working with start-ups due to their inherent risk. Diaspora entrepreneurs running a start-up face an additional snag in hiring talented workforce arising from a common fear that whether the Diaspora entrepreneur will be in the country of residence for a long haul or not. In addition, start-ups find it difficult to compete with the large companies as far as reputation and compensation structures are concerned. Many of those who start working for Diaspora entrepreneurial start-ups switch to established companies after a few years attributing to the failure of such start-ups in competing



with the reputation and compensating structures of large companies.

Government of India has taken a lot of steps to boost the start-up environment in the country. However, the present regulatory framework has very little to offer to the Diaspora entrepreneurs ambitious of setting up start-ups in the country. In India, the penetration of technology is very low, especially in remote rural areas. Issues such as poor telecommunication, broadband connectivity and internet connection speed add to the poor quality of infrastructure. Entrepreneurs are also laden with the legal incorporation and registration processes which are excessively lengthy and costly requiring a lot of approvals leading to high entry barriers. After the incorporation phase, the Diaspora entrepreneurs have to go through the registration of their set-ups to qualify for various tax benefits. The tax structure of the home countries differs from those of the countries of residence. Diaspora entrepreneurs find it particularly difficult to understand and keep track of filing their taxes regularly, failing which they risk huge penalty payments.

India has weak patent law. Apart from patent filing in the country being low, granting of the patents is also delayed. Therefore, a number of start-ups are concerned about the protection of innovative ideas. Another reason for less number of Diaspora start-ups coming to India is the low share in the budget allocated to the research and development initiatives. Many Diaspora start-ups have commented that due to lack of budget allocated to Research and Development activities, these start-ups fail to show innovation and creativity.

### **PANDEMICS AND START-UP ECOSYSTEM**

Starting in the year 2020, has witnessed a pandemic which has changed the ecosystem of the world altogether. It won't be wrong if we presume that pandemics such as Covid-19 have an impending effect on the still growing start-up ecosystems of many countries. Sequoia termed the corona virus pandemic as The Black Swan of 2020,

and had warned that it may take several quarters to be contained, and the global economy will take even longer to recover from its effects. Start-ups like other companies are struggling in almost all areas of business and many are even on the verge of collapsing. The worst hit of the lot can easily be identified as the start-ups in the travel sector such as providing flight bookings, hotel bookings. However, many start-ups have witnessed a sharp increase in business. Videoconferencing applications are having huge demand amid work-from-home conditions. Gaming and online education providers are also experiencing an increase in users. Online retail start-ups, though, are witnessing high demands, yet they are not able to fulfil the entire demand due to lack of availability of the products. Meanwhile, insurance start-ups are witnessing sharp increases in demand.

Therefore, we can say that pandemics like Covid19 have an obstructing effect on the development of the start-up ecosystem of any country. And if a country has a strong ecosystem preparedness to face such pandemics will surely attract Diaspora entrepreneurs. India should, in fact, prepare it to better utilize the after effects of the pandemic in its favour that can be a catalyst in attracting diasporans.

### **DISCUSSIONS AND RECOMMENDATIONS**

Diaspora entrepreneurs are at an advantage of making use of different types of capital from the country of origin and the country of residence. Many researchers have concluded that Diaspora entrepreneurs add to the development of the ecosystem by integrating the capital structures of the different points of operation. Diaspora entrepreneurs further are instrumental in the development of the start-up ecosystem of any country by reinforcing the individual capital structure. One such successful example is that of Silicon Valley. Therefore, many developing countries are making efforts to attract high growth start-ups from different countries to help boost their own start-up scenario. Although

many countries have adopted nationalist measures to protect their domestic industries, many others have come up with innovative measures to attract Diaspora entrepreneurs. In this context, it is observed that Diaspora entrepreneurs migrate voluntarily to develop their businesses in different countries providing favourable living and working conditions. Countries are formulating legal and regulatory frameworks which are easily understood and complied with by the Diaspora entrepreneurs. Governments willing to attract Diaspora entrepreneurs are offering start-up visas to launch Diaspora start-ups in the country. The Indian government must take cues from visa regulation policies of other countries successful in attracting Diaspora start-ups. After evaluating the start-up idea of the Diaspora entrepreneur, start-up visas can be granted. Based on certain criteria such as annual turnover, creativity and innovation and job creation opportunities, residence and work permits can be granted for one or two years. One of the reasons why Diaspora start-ups do not feel comfortable in establishing business in India is due to the long-time taken to grant clearance for setting up of business. These delays can be reduced if the state and centre government work together to provide a fast track mechanism to reduce delays and provide facilities to the Diaspora start-ups.

The tax structure of the country is complex for a Diaspora entrepreneur to understand. Diaspora entrepreneurs starting a solo business in a country like India would like to have lower as well as simpler tax regime which can be easily understood and complied by them. In addition to a simpler tax structure, Diaspora entrepreneurs appreciate fiscal incentives provided to them.

Diaspora entrepreneurs face many problems such as communication barriers, cultural divide, language diversity, political and economic instability and adverse living conditions such as high levels of pollution, poor hygiene facilities and civic amenities. It is well known that the governments of developing countries

are in favour of attracting big established multinational countries, but if they realise the role of start-ups in economic development, then an easier path can be paved for the operations of the Diaspora start-ups. To cope up with social obstacles, Diaspora entrepreneurs look up to their support groups. Start-up business visionaries share common encounters, challenges and intellect sets (Van Weele, 2014). These support groups help each other in providing help in understanding the different cultures, languages and attitudes of the country of residence. Therefore, any country which provides a favourable environment to the diasporans, is able to succeed in attracting the Diaspora entrepreneurship in the start-up ecosystem. A strong cyber security law is required to attract and protect Diaspora start-ups in the country that bring innovation and creativity. In this context the government of India must learn from some of the successful countries like China. As discussed earlier that weak patent laws in the countries pose one major turnoff to the Diaspora entrepreneurs, therefore the government of India must make efforts in speeding the filling process of the patents and also strengthen the law so as to protect creativity and innovation. The current unpredictable situation associated with the pandemic poses a question: will India equip itself fast to become the next hub for Diaspora entrepreneurs?

## CONCLUSION

Every entrepreneur undertakes a new enterprise in expectation of its success so that wealth and jobs gets created and improvement in economic wellbeing takes place. Having bases in two different countries, Diaspora entrepreneurs have unique capability to identify opportunities in their home countries and are emotionally charged to add on to employment generation and economic development in their homelands. It is but natural that the policy makers try to harness and utilise this tremendous resource for economic growth and development of their country. Motivating and incentivising the members of the Diaspora to engage into entrepreneurial ventures is a matter of great concern

for the nation's development policy. But, it has been observed that entrepreneurs do not appreciate too much state intervention in day to day business activities. On the other hand, state-run organisations find Diaspora entrepreneurs as a challenge for their existence, and local businesses may oppose facilities and promotions given to the Diaspora. But, Diaspora entrepreneurs must not be treated as panacea for all ills such as sluggish job creation and slow growth in the economy.

Though it is essential to promote entrepreneurship, not at the cost of distorting the markets. A fine balance between the two is a prerequisite. Additionally, a number of research confirmed that potential Diaspora entrepreneurs will invest and start a business only if the political situation in their home country is stable, there is no civil unrest and sufficient infrastructure is there to create a favourable work environment. Members of a Diaspora are more likely to see opportunities, understand the opportunity structure, and have connections and “cultural capital” that facilitate their undertakings than other foreign investors. On the negative side, they are more likely to face biased attitudes, resentment from natives, and bureaucratic hurdles in their home countries. Governments, multilateral institutions, Diaspora organizations, and other civil society groups must help Diaspora entrepreneurs to tap the resources they need and clear obstacles to realizing their ventures in order to ensure that their efforts create a ‘win-win’ situation for all the stakeholders. These entrepreneurs take risks by tapping the opportunity, bringing investment and innovations in their home country. If given a chance, they have an appetite to engage in high-risk businesses. Since they have roots in their home country, they are better versed with the political, cultural, economic and social environment of the country of origin, and hence have a ‘first-mover advantage’ in the country of origin as compared to non-Diaspora investors.

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# Mapping the theme Evolution in the Field of Financial Literacy Seen Through Prisma of Biblioshiny

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**Abstract :** *This study aims to elucidate the outlook of existing literature on the financial literacy in order to appreciate its structure and evolution. We map various pathways for integration of financial literacy with other niche fields for further research perspectives. We conduct a bibliometric analysis of journal publications published between 2016 and 2021 by accessing the WOS database with the main keyword "Financial Literacy" using Biblioshiny software. Based on a qualitative review, we investigate whether the field offers numerous novel perspectives, models, and theories that have the potential to enrich our theoretical understanding of relevant research questions in domains.*

**Keywords:** *Financial literacy, Bibliometric analysis, Visualisation, Thematic mapping*

**JEL classification:** Y910, G53

## INTRODUCTION

According to the ASIC (2003), financial literacy is “the ability to make informed judgments and to take effective decisions regarding the use and management of money. Financial literacy, according to Servon and Kaestner (2008), is described as a person's ability to comprehend and apply financial concepts. Furthermore, according to Remund (2010), financial literacy is a measure of one's understanding of key financial principles as well as his or her skill and trust in managing one's personal finances. Huston (2010) defined financial literacy as a process of understanding and applying financial concepts and developing techniques to effectively manage financial resources.

Over the last two decades, the financial literacy research corpus has expanded significantly, resulting in fragmentation of the information domain and the development of new sub-fields. Many conceptual frameworks, theories, and acclaimed factors related to financial literacy and other fields have been explored and developed. Researchers find it more difficult to keep up with emerging trends as a result of these changes, and the amount of related research in their subject areas likely overwhelm them. A systematic and thorough analysis of scientific progress in a field is quickly becoming a valuable tool for guiding future research. It is important to revisit the literature on a regular basis in order to fully comprehend what is being said and to understanding the diversity of knowledge for a specific academic field (Tranfield et.al., 2003). Such reviews play an important role in consolidating extant research and establishing connections between disparate bodies of literature (Crossan & Apaydin, 2010).

The authors were motivated to establish and address the connection between financial literacy and other untapped fields through relevant theoretical topics for future debate. The study's main goal is to find new problematic areas or aspects that are important to it. Related sub-objectives were specified in conjunction with this goal in the following section of the objectives of the study. In addition, the study will provide prospective researchers with a keyword list, thematic overview, and gaps in the current literature in this area,

allowing them to categorize whether future research will relate to factors such as consumer attitude, influence, decision making, and entrepreneurship in the context of financial literacy. As a result, the research area that follows is significantly expanded. The subsequent research field is described as follows: the successive section of objectives, methodology and result and discussion through initial statistics and bibliometric analysis of the paper are delineated. The methodology portion of the article will list all of the tools, software, and databases used in the current analysis. Furthermore, in the final sections of the paper, discussions are formed on the effects of current study priorities, managerial and theoretical recommendations for future studies, and conclusion is drawn. We plan to define the relationship between financial literacy and trends for various areas related to it, based on a review of relevant literature on the topic. Another primary goal of the research is to complete previous academic accomplishments, with the assumption that there is still enough to be attached to provide an orientation for future studies. Furthermore, we want to research significant developments in the field of financial literacy in this context.

## REVIEW OF LITERATURE

### *Financial literacy: concept and its domains*

According to the United States Treasury's Financial Literacy and Education Commission, "the ability to use knowledge and skills such as personal financial management, budgeting, and investing to manage financial resources effectively for a lifetime of financial wellbeing is called financial literacy". There are five key components of financial literacy earn, spend, save and invest, borrow, and protect. OECD, (2014) stated: "Financial Literacy is Knowledge and understanding of financial concepts and the risks, and the skills, motivation and the confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the

financial well-being of individuals and society, and to enable participation in economic life".

The National Council for Financial Education (NCFE) in India has defined Financial Literacy as financial knowledge and the ability to apply numeracy skills in a financial context. Financial Attitude is defined as that outlook or mental disposition of consumers which, despite their adequate knowledge and ability to act in a particular way, influences their decision whether or not to act that way.

In the UK, the term 'Financial capability' tends to be used, rather than financial literacy. Financial capability comprises three interrelated elements: knowledge, skills and attitude as broader concepts than simply knowledge. Financial literacy is more commonly used in other jurisdictions, such as in the US and Australia, but it is taken to include those broader concepts of financial capability used in the UK. The term 'financial literacy' is also used in some instances (such as in Australia) to refer to financial capability (FSA 2006 a).

The German Institute for Adult Education (DIE) within the framework of the project: 'Debt Counselling as a Starting Point for Basic Education - Curricular Networking and Transitions' (CurVe) developed a model contained therein are six different financial literacy domains sub-divided into the dimensions of knowledge, reading, writing and numeracy including potential requirements for everyday life. Under the domain expenditure and purchases, shopping and spending behaviour are the sub domain which contain numerical skill of calculating and comparing costs.

### *Status of Financial Literacy in India*

The National Centre for Financial Education (NCFE), a non-profit organization, was established under Section 8 of the Companies Act of 2013, with the goal of promoting financial literacy in India. It is supported by the Reserve Bank of India, SEBI, IRDA, and PFRDA, four key financial regulators. In 2015, NCFE conducted

a benchmark study of financial literacy to determine India's level of financial knowledge. It organizes a variety of activities to enhance financial literacy, such as partnering with schools and designing new curricula to incorporate financial management principles. The organisation undertakes massive Financial Education campaign to help people manage money more effectively to achieve financial wellbeing by accessing appropriate financial products and services through regulated entities with fair and transparent machinery for consumer protection and grievance redressal. The Central Board of Secondary Education (CBSE), in consultation with the regulators, has developed a financial education workbook for Classes 6 to 10. As on June 2015, 1,226 financial literacy centres (FLCs) set up across the country by lead banks conduct financial literacy camps. It also holds an annual financial literacy test. Investments, kinds of bank accounts, bank services, Aadhaar card, de-mat account, pan cards, and prepaid cards are among the subjects covered by NCFE in its awareness campaigns.

The second Financial Literacy and Inclusion Survey was conducted in 2018-19 following the first one carried out in 2013-14, to take on board all the initiatives made by the Government and Financial Regulators through education and literacy programmes, that are implemented by NCFE. According to a report, barely 24% Rural and 33% urban respondents are found financially Literate. 21% female and 29% male respondents are financially literate. The 18- to 29-year-old respondents are the most financially literate in the age category. Higher the education level and income higher is the prevalence of financial literacy among the respondents. In the occupation category, the Government employees have the highest prevalence of financial literacy. Respondents in the north zone had a financial literacy rate of 32%, while those in the west zone had highest rate of 37%. The lowest score, 20 %, was given for the east zone.

## OBJECTIVES

1. To review the current flow in publishing.
2. To identify the most dominant country and influential journals and documents.
3. To study the widely studied theme evolving among academics.
4. To identify the research gap from theme evolution mapping.

## METHODOLOGY

To review the literature on financial literacy in relation to various other variables, bibliometric analysis has been adapted with the aid of instruments such as Citation, Keyword Concept structural mapping. The research was limited to the years 2016 to 2021. The research was focused on the WOS database's financial literacy research publications. The research data was retrieved from (<https://apps.webofknowledge.com/Search>.) using the research string TOPIC: ("financial literacy") Refined by: RESEARCH DOMAINS: (SOCIAL SCIENCES) AND Databases: (WOS) AND DOCUMENT TYPES: (ARTICLE) AND RESEARCH DOMAINS: (SOCIAL SCIENCE) AND Databases: (WOS) AND DOCUMENT TYPES: (ARTICLE) AND PUBLICATION YEARS: (2021 OR 2020 OR 2019 OR 2018 OR 2017) Timespan: 2016-2021. Databases: WOS, BIOABS, BCI, CABI, CCC, DRCI, DIIDW, FSTA, KJD, MEDLINE, RSCI, SCIELO, ZOOREC. Search language=Auto, on May 9, 2021. The search strategy yield 132 records which were used for further analysis. The complete bibliographic data was retrieved from WOS database in plaintext file format. Initially, the bibliometrix R package (Version 2.3.2 released on 23/11/2019) was installed and loaded through R Studio. The biblioshiny app was then launched by typing biblioshiny ( ) in the console. The biblioshiny: R Statistical Package's shiny app for bibliometrix was used to conduct the current bibliometric (<https://bibliometrix.org/Biblioshiny>).

html) study. It has a lot of features that help you do in-depth bibliometric analysis. It is an application that provides a web-interface for bibliometrix tool (<https://bibliometrix.org/Biblioshiny.html>). Finally, WOS file in plaintext format uploaded on Biblioshiny interface. Then, as per the objectives of the study, excel files were downloaded and used for data analysis.

## RESULT AND DISCUSSION

### Initial Data Statistics

In order to find the ongoing trend for publication on this topic, 132 papers were backed in response to the research's first two objectives. It was evaluated with the help of publications from different countries and journals. The trend of publication: Table 2 and figure 1 represent the country production. The number of publications in each nation, broken down by area. India is ranked second in the world for the number of publications related to financial literacy in last 5 years.

**TABLE 1**

*Table 1: Bibliometric profile of the financial literacy research*

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2016:2021
Sources (Journals, Books, etc)	87
Documents	132
Average years from publication	2.8
Average citations per documents	1.924
Average citations per year per doc	0.4848
References	5389
DOCUMENT TYPES	
Article	70
article; early access	9
proceedings paper	53
DOCUMENT CONTENTS	
Keywords Plus (ID)	267
Author's Keywords (DE)	439
AUTHORS	
Authors	348

Author Appearances	373
Authors of single-authored documents	19
Authors of multi-authored documents	329
AUTHORS COLLABORATION	
Single-authored documents	19
Documents per Author	0.379
Authors per Document	2.64
Co-Authors per Documents	2.83
Collaboration Index	2.91

**TABLE 2**

*Table 2: Publication Region wise*

Region	Freq
INDONESIA	26
INDIA	23
USA	22
MALAYSIA	19
RUSSIA	16
CZECH REPUBLIC	14
BRAZIL	12
AUSTRALIA	11
ITALY	10
SLOVAKIA	9
CHINA	8
NIGERIA	7
ROMANIA	6
TURKEY	6
NETHERLANDS	5
POLAND	5
UK	5
LATVIA	4
PORTUGAL	4
SOUTH AFRICA	4

**FIGURE 1**

Country Scientific Production



*Figure 1: Publication Region wise*



The most prominent source for the publication on financial literacy is shown in Table 3. As can be shown, Vision 2025 is the journal with the most publications in the specified domain. This will assist researchers in locating high-quality resources in order to publish their work in the same field. Because of inclination of this journal in financial literacy.

### BIBLIOGRAPHIC ANALYSIS

The 'Biblioshiny App' of the 'Bibliometrix' software is used to build the Word Cloud. Author keywords were chosen in the graphical parameters. The main benefit of choosing author keywords is that it gives you insight into the most important topics and study patterns. The maximum number of keywords was set at 50. A circle was chosen as the figure's form. The text color was chosen at random from a dark palette. The most commonly used terms in financial literacy research are behavior, attitude, performance, knowledge, and entrepreneurship. Consequences, decisions, decision-making, college students, and empirical research are the terms that are rarely used in reports on financial literacy published in the last five years.

**TABLE 3**

*Table 3: The Most relevant source with number of papers published.*

Sources	Articles
VISION 2025: EDUCATION EXCELLENCE AND MANAGEMENT OF INNOVATIONS THROUGH SUSTAINABLE ECONOMIC COMPETITIVE ADVANTAGE	11
ASIAN ACADEMY OF MANAGEMENT JOURNAL	3

AUSTRALIAN JOURNAL OF MANAGEMENT	3
EDUCATION EXCELLENCE AND INNOVATION MANAGEMENT THROUGH VISION 2020	3
INNOVATION MANAGEMENT AND EDUCATION EXCELLENCE THROUGH VISION 2020 VOLS I -XI	3
INTERNATIONAL JOURNAL OF EMERGING MARKETS	3
INTERNATIONAL JOURNAL OF ISLAMIC AND MIDDLE EASTERN FINANCE AND MANAGEMENT	3
JIMS8M-THE JOURNAL OF INDIAN MANAGEMENT & STRATEGY	3
MANAGEMENT SCIENCE	3
MARKETING AND MANAGEMENT OF INNOVATIONS	3
POLISH JOURNAL OF MANAGEMENT STUDIES	3
SMALL BUSINESS ECONOMICS	3
13TH INTERNATIONAL DAYS OF STATISTICS AND ECONOMICS	2
IIM KOZHIKODE SOCIETY & MANAGEMENT REVIEW	2
INTERNATIONAL JOURNAL OF MANAGEMENT EDUCATION	2
INTERNATIONAL SMALL BUSINESS JOURNAL-RESEARCHING ENTREPRENEURSHIP	2
JOINT CONFERENCE ISMC 2018-ICLTIBM 2018 - 14TH INTERNATIONAL STRATEGIC MANAGEMENT CONFERENCE & 8TH INTERNATIONAL CONFERENCE ON LEADERSHIP TECHNOLOGY INNOVATION AND BUSINESS MANAGEMENT	2
JOURNAL OF COMPETITIVENESS	2
MANAGEMENT RESEARCH REVIEW	2
PROCEEDINGS OF THE 2016 GLOBAL CONFERENCE ON BUSINESS MANAGEMENT AND ENTREPRENEURSHIP	2

FIGURE 2



Figure 2: World cloud ( Author’s Keyword)

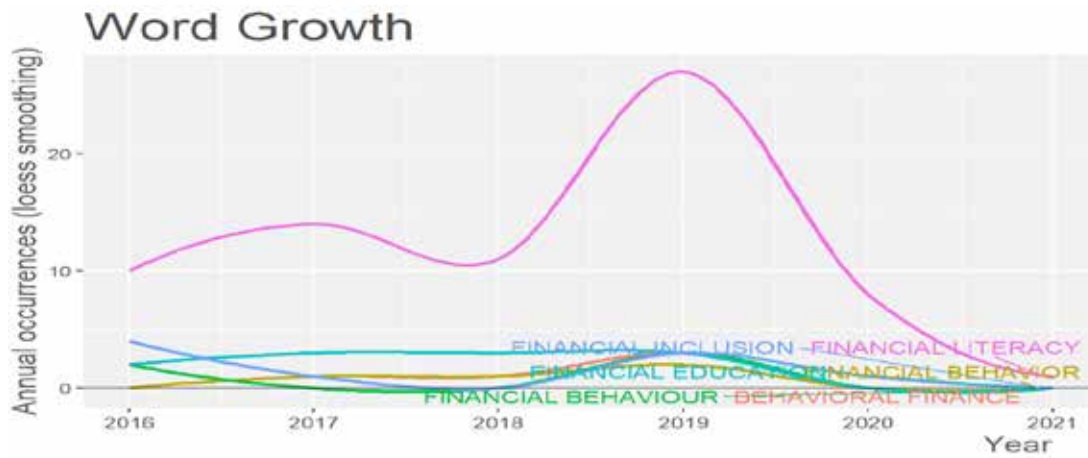
FIGURE 3



Figure 3: Trends in Topic

Figures 3 and 4 show the growth in terms associated with financial literacy as well as the trend in topics investigated by researchers. The most relevant subjects, which emerged as a trend after 2018, but were left behind somewhere, are financial behaviour and the determinants that affect financial literacy. There is a lot of room for more research in this field.

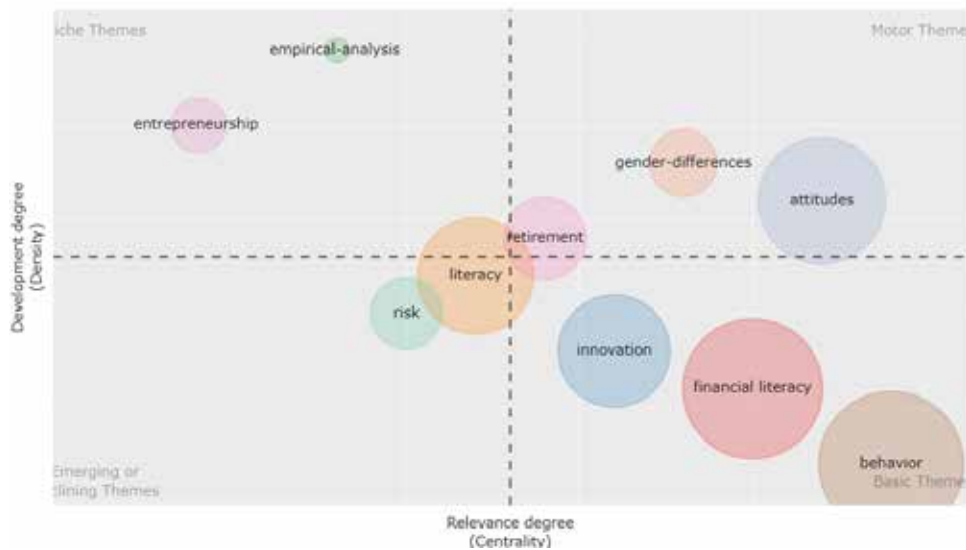
**FIGURE 4**



*Figure4: Word Growth*

Figure 5 illustrates the need for more longitudinal research on financial literacy. The effect of financial literacy on attitudes, especially toward life, preferences and wealth management, when gender differences are taken into account, is a motor theme that has yet to be explored.

**FIGURE 5**



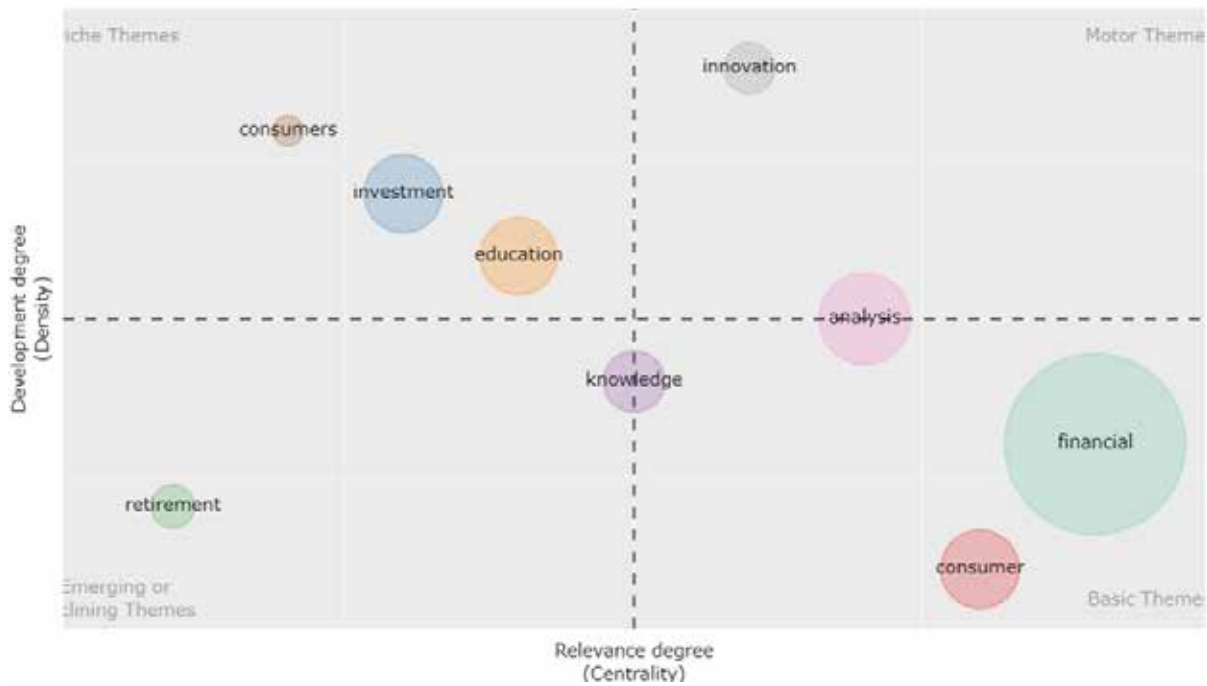
*Figure 5: Thematic Mapping*

**TABLE 4**

*Table 4: Clustering of Themes according to keywords*

Cluste_Label	Words	Occurrences
gender-differences	gender-differences	3
gender-differences	Consumers	2
gender-differences	Strategies	2
Attitudes	Attitudes	7
Attitudes	Impact	7
Attitudes	Information	5
Attitudes	Aversion	4
Attitudes	decision-making	3
Attitudes	Perceptions	3
Attitudes	planned behaviour	3
Attitudes	Life	2
Attitudes	Model	2
Attitudes	Preferences	2
Attitudes	Wealth	2
Entrepreneurship	Entrepreneurship	5

**FIGURE 6**



*Figure 6: Clustering of themes according to Title*

**TABLE 6**

Table 6: Clustering of themes according to Title

Cluster_Label	Words	Occurrences
Consumer	consumer	6
Consumer	Indonesia	6
Consumer	performance	6
Consumer	banking	4
Consumer	sector	5
Consumer	services	5
Consumer	protection	4
Consumer	capital	3
Consumer	developing	3
Consumer	empirical	3
Consumer	indian	3
Consumer	sustainable	3
Consumer	assessing	2
Consumer	competition	2
Consumer	human	2
Consumer	problems	2
Investment	investment	11
Investment	influence	6
Investment	Risk	5
Investment	individual	4
Investment	investors	4
Investment	business	3
Investment	decision	3

Investment	experience	3
Investment	perception	3
Investment	strategies	3
Investment	behaviour	2
Investment	choice	2
Investment	competencies	2
Investment	decision-making	2
Investment	making	2
Investment	process	2
Investment	Style	2
Retirement	retirement	11
Retirement	planning	6
Retirement	framework	4
Retirement	saving	4
Retirement	based	3
Retirement	decisions	3
Retirement	comparison	2
Retirement	regulation	2
Retirement	structural	2
Knowledge	knowledge	9
Knowledge	pension	5
Knowledge	determinants	5
Knowledge	industry	4
Knowledge	Funds	3
Knowledge	savings	3
Knowledge	actual	2
Knowledge	current	2

According to previous literature, financial literacy research in relation to consumers is a niche theme (Figure 5 and 6). Themes based on Indian consumers in terms of empirically analysing their financial behaviour patterns are untapped areas.

FIGURE 7

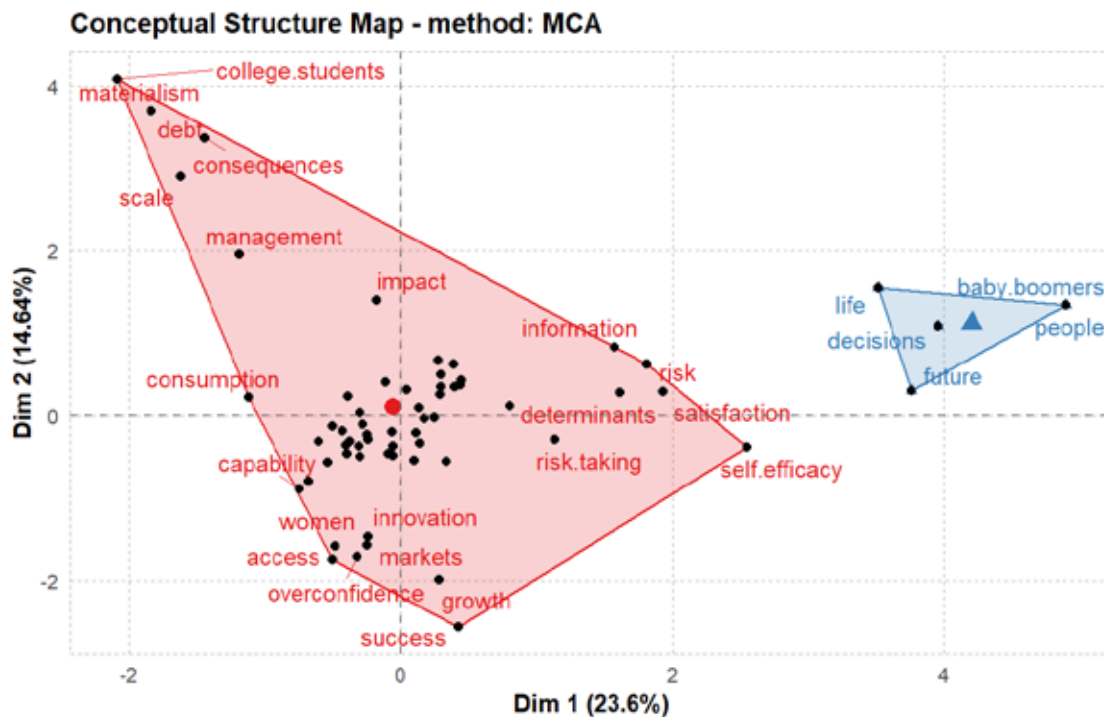


Figure 7: Conceptual Structure Map

Figure 7 depicts the evolution of financial literacy research from 2016 to 2021 through the temporal framework of the words. The terms: capacities, impact, determinants, implications, life decision, and so on are divided into two clusters. In the real world, financial literacy has many applications. Its influence on human behaviour and everyday economic decisions resulted in a plethora of effects.

## CONCLUSION

Bibliometrix is an R-based package for bibliometric analysis. R is an ecosystem app, which means it works in a combined environment that includes open-source libraries, open-source algorithms, and open-source graphics. We used data from WoS to examine the longitudinal development of financial literacy between 2016 and 2021 in order to learn more about the bibliometrix bundle. Financial literacy is on the rise

because of its impact on daily life financial decision of economic agents and their financial well-being. Financial literacy not only an economic phenomenon it has relevancy in business and managements too. There are many more areas those need to explore in relation to financial literacy to develop more understanding. For bibliometric analysis, there are a variety of software tools available. However, they are difficult to use for inexperienced users. One of the benefits of open-source software is that their codes can be studied and updated in a field like bibliometric analysis that is constantly evolving. As a result, more Open-source software applications in bibliometric research are unavoidable.

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# Indian Unicorns and Covid 19: An Assessment and Prospects

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**Abstract :** *The Indian economy has witnessed a series of unprecedented growth in the form of start-ups in the last two decades. So far, Indian start-ups have created 65 unicorns out of which 28 have been created in the year 2021. This shows that there is an increase scope in this area and a lot of capital is expected to come from angel investors. According to Reserve Bank of India (India, August 2021) latest report on the State of the Economy “the year 2021 could be India’s year of IPOs (Initial Public Offers) with the domestic unicorns setting domestic stock markets on fire and global investors in a frenzy through their public issues”. India is now third in the global list of countries with the highest number of unicorns, behind only United States and China. In this paper, an attempt has been made to assess the growth and prospects of Indian unicorns and to examine various policy initiatives undertaken by the government to promote entrepreneurship culture and to boost up Indian start-up ecosystem.*

**Key Words:** *Unicorns, Start-ups, COVID 19, E-commerce, FinTech, Shared Economy*

## **I. Introduction;**

With the advent of Industrial Revolution 4.0, Digitalization and Technology Upgradation of operations has become the dire need for the businesses in order to flourish and settle in this highly competitive environment. Further, the outburst of COVID-19 pandemic has profound impact on the business and has been called the “Great Accelerator” of digital transformation, with technology at the forefront of country’s response to the crisis. Business organisations

all over the world have had to adjust to a new way of work. Various Businesses which used to exist in pre-covid times have disappeared as they don’t have customer availability which has been shifted towards the online market. So, Digitalization of business has become the need of the hour for any business to have customer reach. This pandemic has really fast-tracked the process of digitization of businesses which could have occurred in 5 years down the line.

Digital transformation technologies such as Cloud, Internet-of-Things (IoT), Blockchain (BC), Artificial Intelligence (AI), and Machine Learning (ML) constitute to bulk of what is being adopted by organisations as a part of their transformation effort (De, Dec 2020). The magnitude of COVID-19 crisis is more acute and completely different from major crisis of the world such as East Asian Crisis 1997, Global Financial Crisis 2008, Recession in Greece 2010, Recession in Nigeria 2016 etc. The pandemic has necessitated to adopt and create new reality and a future wherein business model must be reconsidered. This includes big businesses (Unicorns firms) as well as small (MSMEs) ones.

A Unicorn company or unicorn start-ups a private company with valuations over \$ 1 billion. The term was first popularised by venture capitalist Aileen Lee in 2013 to describe rare technology start-ups. These are also known as a decacorn (valued at over \$ 10 billion) hectogon (valued at over \$ 100 billion). Popular former



unicorns include Airbnb, Facebook and Google. As of July 2021, there are more than 700 unicorns across the globe (CB Insights). With the creation of new tech-based companies and new categories of businesses, the Covid-19 pandemic has necessitated that many more business segments of business are conducted online, and start-ups in the area proliferate in to new territories (Sachdev, 2021). According to CB Insights (2020), there are 448 unicorns' world-wide up to May 2020. Asia is dominating North America with amazing growth in recent years. For Instance, China (the unicorn leader in Asia) had zero unicorn in 2013 to 56 in 2014 and then to 109 in 2020, thereby threatening US dominance of the Unicorn list in recent years. North America has the highest distribution of Unicorns in terms of value, while Asia is the leader in terms of overall market value. The highest valued unicorns. The highest valued unicorns in the world are from China; Toutiao (Bytedance) with a valuation of USD 75 billion and Didi Chuxing with USD 56 billion (Pérez-Morón, Marrugo-Salas, & Tordecilla-Acevedo, 2021). Start-ups have the potential to be engine of growth in the future. The Indian start-up ecosystem has been progressing well, despite the COVID-19 pandemic.

## II. Research Objectives;

The present study attempts to unfold the growth, recent trends and prospects of Unicorns during COVID-19 period in India. The main question of the research is: in what ways COVID 19 is providing opportunities to speed-up the growth of unicorns in India? This is one of the studies to address the influence of COVID -19 on Indian unicorns and thereby helps to fill the research gap that exists at present. More specifically, we attempt to achieve the following research objectives;

- To trace the growth of unicorns in India during COVID-19 pandemic;
- To understand the recent trends and future prospects of unicorns in India.
- To examine the various reasons/opportunities available to promote unicorn ecosystem in India.

## III. Data and Research Methodology;

We apply descriptive research design primarily based on secondary data sources. The descriptive research is useful as it is structured in nature and provides a clear direction of information collection. (Bajpai, 2018). The secondary data has been collected from reports of CB Insights, NASSCOM, Harun Research Institute, RBI, Policy documents/ notifications of Govt of India etc. In addition, the data has also been collected from reputed journals, research articles, and newspaper articles. After collecting the data, we analyse it empirically in the form of various tables, charts and graphs.

## IV. Indian Unicorns: An Assessment

In the last one decade, India has witnessed the surge in new businesses or start-ups setup (which are majorly tech-enabled) and is ranked 3rd globally and thereby for producing a larger number of unicorns around the world. This has made India a popular and attractive destination for the global investors. Investors like Tiger Global, Sequoia Capital, Ant Group, etc. have been the consistent partner for the India Start-ups ecosystem.

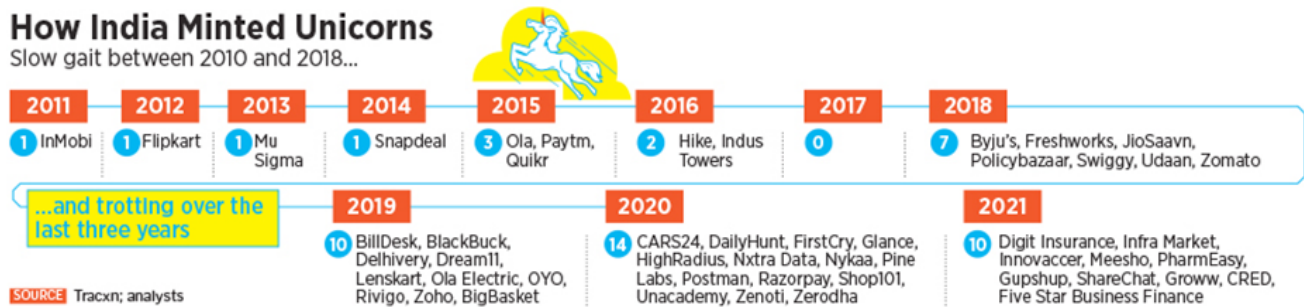
As a result of second generation of economic reforms which was stated in 1991, India was finally catching up with the prevailing global predominant thinking on development strategy; an open economy, market-oriented framework fuelled by higher savings and investment, the economy assented to a higher growth part of around 7 % annual Gross Domestic Product (GDP) growth (Mohan, 2021). These reforms were a major turnaround for the Indian economy. The untapped potential which was existing within the country was being utilized to the fullest. Within the span of just 10 years, India came to be known as “Software Hub” for the world. Companies like Infosys, Tata Consultancy Services, HCL, etc. took Indian innovation to next level and India was able to witness the Digital Revolution on time which would have cost a lot if 1991 reforms would have been delayed any further.

So, with the advent of the internet and digital transition taking place within the country, people from various

corners of the country started having confidence to make something of their own which they could capitalize at a bigger level. This gave rise to the Indian Start-ups story as companies like Flipkart (E-Commerce Giant, competing head-to-head with Global giant Amazon in

India), Paytm, Quick Heal, etc. It was a huge success and it had shifted the trend as entrepreneurs all across the country had gained confidence which led to rise in setting up of new businesses within the country.

Figure-1



This shift in trend was not possible without government support as they are major stakeholders in this country. There was the confidence which was being given by the government to change the outlook towards the business. Every Government has contributed a lot to make India a popular destination for investment. So, India has made huge progress from what it was mainly in terms of attitude towards the business as nowadays there exists a

burning desire within the youth of this country to start something of their own. **This confidence is very much required if a country wants to stand upon its feet and become self-reliant.**

It gave us the confidence to compete with the world which can get us on the road to becoming a Superpower quite possibly by the end of this decade.

Table-1 Growth of Indian Unicorns (2014-2019)

Name	Business	Industry	Valuation (in USD)	Year founded	Year of Unicorn Valuation
InMobi	Enterprise platforms for marketers	Tech	\$1.0	2007	2014
Ola	Ride-sharing, taxi, food delivery	Transportation	\$6.2	2010	2014
Snapdeal	E-commerce	Retail	\$1.0	2010	2014
Quikr	Classified advertising	Media	\$1.0	2008	2015
Hike	Freeware, messaging, and voice over IP	Tech	\$1.4	2012	2016
ShopClues	Online marketplace	Retail	\$1.1	2011	2016
One97 (Paytm Mall)	E-commerce	Financial services	\$15.0	2010	2017

Name	Business	Industry	Valuation (in USD)	Year founded	Year of Unicorn Valuation
ReNew Power	Renewable energy	Energy	\$2.0	2011	2017
BillDesk	Online payments	Financial services	\$1.8	2000	2018
Flipkart	Online store	Retail	\$22.0*	2007	2018
Freshworks	Enterprise software	Tech	\$1.5	2010	2018
Musigma	Data analytics and management consulting	Tech	\$1.5	2004	2018
OYO	Budget lodging website	Hospitality	\$10.0	2013	2018
Pine Labs	Merchant payment platform	Financial services	\$1.0	1998	2018
Policy Bazaar	Insurance plan aggregator	Financial services	\$1.0	2008	2018
Swiggy	Online food ordering and delivery	Transportation	\$3.3	2014	2018
Think and Learn Private (Byju's)	Educational technology and tutoring	Tech	\$5.4	2008	2018
Udaan	B2B trading platform	Logistics	\$2.3	2016	2018
Zomato	Restaurant aggregator and food delivery	Transportation	\$2.5	2008	2018
Big Basket	Online megastore	Retail	\$1.2	2011	2019
CitiusTech	Healthcare technology services	Healthtech	\$1.0	2005	2019
Delhivery	Third-party logistics	Logistics	\$1.6	2011	2019
Dream11	Fantasy sports platform	Media	\$1.5	2008	2019
Druva	Cloud-based data protection	Tech	\$1.0	2014	2019
Icertis	Contract management software	Tech	\$1.0	2009	2019
Ola Electric (spin-off from Ola)	Mobility	Automotive	\$1.0	2017	2019
Rivigo	Logistics	Logistics	\$1.0	2014	2019
Lenskart	E-Commerce (Eyewear)	Tech	\$1.0	2010	2019

The Table-1 presents the year-wise breakup of the Indian Unicorns during 2014-2019. India's first fewest unicorns had started their journey in the time frame of 2007-2010. Several Companies which are now big in numbers with their huge market capitalisation have grown in just a matter of 10+ years. The road to Indian Start-up story got accelerated with the success of Flipkart, when it became the perfect competitor for the giant like Amazon in Indian market. Flipkart's success had acted as a stimulator and gave confidence to the new businesses to move forward and compete at bigger level. More companies had started growing big and there came the wave of unicorns in the time

period of 2014-2016. During this time period, 6 start-ups companies joined unicorn club. The 2018 acted as a major turnaround for the Indian Start-up Ecosystem, 11 start-ups were being declared unicorns in just one year. It was the huge success for the country's economy well. In the next year, 9 start-ups got declared unicorn further accelerating the pace of entrepreneurship in India. The outburst of pandemic did not deter entrepreneurial skills of Indian youth and country successfully got 12 unicorns in the year 2020. In 2021 (up to August) within the time frame of just 8 months, India has reported 21 start-ups which have become unicorns. Up to October 2021, the country has minted 31 unicorns.

## V. Indian Unicorns: Growth, Recent Trends and Future Prospects;

In 2013, when Aileen Lee, founder of Cowboy Venture, conceptualised the term “Unicorn” to refer to technology start-ups with valuation over USD 1 billion, there were 39 unicorns in the U.S.A and India had none. Here, start-ups environment faced various obstacles such as scarcity of funds and talent, inadequate infrastructure and large number of cultural and social challenges. The young generation was not attracted to entrepreneurship, and inclined more to managerial jobs in large IT and MNCs. But in recent years, particularly after 2019 this trend has been changed and the years 2020- 2021 is going to be memorable and can be termed as “Unicorn Years” for the country. The pandemic which has been having devastating impact on the Indian economy, it has also led to increase in on-line technologies in India. The government is playing a significant role to change the mind set of millennial generation by infusing confidence and adopting business friendly policies and strategies.

The growth stories of Indian unicorns are being told throughout the country. In India, during the 2020, total 14 companies attained unicorn status. Indeed, the rise of unicorn in this country is not just a boon for those who have invested in them. It must be seen as a sign

that the Indian economy is reaching a turning point and that ENTREPRENEURIAL CULTURE is maturing here (Narayanan, Winter 2019/Issue 97). Despite COVID 19 pandemic which has been having devastating impact on human lives and businesses, has given an edge to internet and tech-based companies. Despite lockdowns and limited mobility, these tech start-ups have attracted investments from global giants. In India, the year 2020 was good as 14 start-ups entered “Unicorn Club” as against 10 in 2019. **Four Indian Start-ups namely Nykaa, Unacademy, Postman and Razorpay have emerged a unicorn while the pandemic was its peak.** Though Covid-19 affected the Indian start-ups ecosystem badly but remarkable fact is that the ecosystem responded very quickly. In the next section we are analysing various dimensions of Indian unicorns during 2020.

### A. Top Unicorns of India: 2020

According to Hurun Global Unicorn List 2020, India is a home to 21 unicorns with valuation USD 73.2 billion. Fintech company Paytm is India’s highest paid unicorns with valuation USD 16 billion. Top ten Indian unicorns make up 78 percent of the total value of unicorns, while Paytm alone claims approximately 22 percent of the total valuation share of these unicorns, with a valuation of USD 16 billion (Table-2)

**Table- 2 Top Ten Global Unicorns 2020**

Rank	Name	Valuation (US\$ bn.)	Headquarters	Sector
1	Paytm	16	Noida	FinTech
2	OYO Rooms	8	Gurgaon	E-commerce
2	BYJU’s	8	Bengaluru	EdTech
4	Ola Cabs	6	Bengaluru	Shared Economy
5	Swiggy	3.5	Bengaluru	On-Demand Delivery
5	Zomato	3.5	Gurgaon	On-Demand Delivery
7	Paytm Mall	3	Noida	E-commerce
7	ReNew Power	3	Gurgaon	New Energy
7	Zerodha	3	Bengaluru	FinTech
10	BigBasket	2.5	Bengaluru	E-commerce
10	Udaan	2.5	Bengaluru	E-commerce

Source: Hurun Research Institute

The average age of Indian unicorns is seven years, out of which two are less than four years old. Ola Electric is the youngest unicorn on the list (founded in 2017) followed by Udaan which was founded in 2016 (Hurun Research Institute, 2020). The main reason why unicorns are taking less time to scale-up because of increase in internet users from 200 million in 2014 to more than 500 million users in 2020.

### B. Indian Unicorns Vs Global Unicorns: A comparison

According to Hurun Unicorn List 2020, India added 21 unicorns in total. U.S.A ranked one in terms of number of unicorns and new unicorns (233 and 60) respectively and accounted 78 percent of the world's unicorns. China is not too far from USA with 227 numbers of unicorns and 38 unicorns in a year. Interesting to note that U.K and India positioned at third and fourth place respectively and India is not much behind U.K.

**Table-3 Relative Position of India: 2020**

Company Name	USA	China	UK	India	South Korea	Germany
Number of Unicorns	233	227	24	21	11	10
New Unicorns	60	38	10	3	6	2
Years to Unicorn	6.5	5.5	8	7	11	7

Source: Hurun Research Institute

### C. Indian Unicorns: Sector-wise Analysis

Indian digital market is a burgeoning and has the potential to tap new opportunities across the globe through E-commerce sector. when we look at the sectors in which largest number of Indian unicorns are

founding, E-Commerce occupies first position where in 33 percent of the unicorns conduct business followed by Fintech (14 percent) and Shared Economy\* (9 percent) respectively. From the Table- 4 one can infer that Fintech is promising sector where more unicorns are expected to be come up in the near future.

**Table- 4 Indian Unicorns: Different Sectors (2020)**

Rank	Industry	No. of Unicorns	% Of Total Value
1	E-commerce	7	33.3%
2	FinTech	3	14.3%
3	Shared Economy	2	9.5%
4	Logistics	2	9.5%
5	On-Demand Delivery	2	9.5%
6	New Energy	1	4.8%
7	EdTech	1	4.8%
8	Big Data	1	4.8%
8	Communication Platform	1	4.8%
10	Gaming	1	4.8%

Source: Hurun Research Institute

\*The shared economy is an economic model that allows consumers to share in the creation or use of products, goods and services. This sharing often takes place across digital platforms such as on-lone communities or apps (Lake, 2021).

**V (ii) Recent Trends in 2021:**

The year 2021 is momentous year for the Indian unicorns. Up to July 2021, 17 Indian start-ups have already entered into unicorn house. It is expected that more start-ups will soon occupy unicorn status in near future as investors are showing more confidence in the Indian companies and funding is increasing tremendously. In January 2021, Digit Insurance became the first unicorn of the year and three more namely Innovaccer, infra. Market and Five star were added by the end of March 2021 (Singh, 2021)

**One of the remarkable features of this year is that the eco-system has seen the entry of the first health tech, social commerce, e-pharmacy unicorns.** In April 2021, six start-ups namely CRED (Fin tech), share Chat (social media), Groww (Wealth management), Gupshup (messaging platform), Meesho (social commerce) and Pharm Easy (e pharmacy) have entered into unicorn house. In May 2021, Moglix and Zeta turned unicorns whereas in June 2021 Browserstack were new member. In July 2021, BlackBuck (logistic tech), Droom and OfBusiness became unicorns. As far as popular sectors are concerned, E-commerce, Fintech and Enterprise tech are popular as there are 12 E-commerce unicorns 12 Fintech unicorns (TeamInc42, 2021)

**Table-5 Indian Unicorns 2021: Sector-wise Analysis**

E-Commerce	Fintech	Enterprise tech
Flipkart, Snapdeal, First Cry, Moglix, Infra.Market, Udaan, Paytm Mall, Droom	Paytm, PhonePe, Zerodha, Razorpay, Pine Labs	Zenoti, GupShup, BrowserStack, Freshworks, Zoho, Druva, Icertis, Ofbusiness, BlackBuck and others.

Source: Inc42.com

**Table- 6 Indian Start-up Unicorns in 2021**

Unicorn	Date	Valuation (US \$ billions)	Sector
Digit	Jan-15	\$1.9	Insurance
Innovaccer	Feb-24	\$1.3	Software
Infra.Market	Feb-25	\$1.0	Infrastructure
Five Star	Mar-27	\$1.4	Banking
Meesho	Apr-05	\$2.1	Social Commerce
Cred	Apr-06	\$2.2	Fintech
PharmEasy	Apr-07	\$1.5	E-Pharmacy
Groww	Apr-07	\$1.0	Stockbroking
ShareChat	Apr-08	\$2.1	Social Media
Gupshup	Apr-08	\$1.4	Enterprise Messaging
Chargebee	Apr-20	\$1.4	Fintech
Urban Company	Apr-27	\$2.0	Home Services
Moglix	May-17	\$1.0	B2B E-Commerce
Zeta	May-24	\$1.5	NeoBanking
Browserstack	Jun-16	\$4	SaaS

Source: ET Tech Research

Now we are in the eight month of year 2021 and Indian start-ups eco system has already added 22 new unicorns. **CoinDCX is the latest and the first Indian Crypto start-up to attain unicorn status (Table-7).** According to NASSCOM latest report, India will have

more than 50 unicorns by the end of 2021. It further adds that with the continued addition of new start-ups and increased adoption of deep-tech, the eco-system shows an even more promising future (Rao, 2021).

**Table-7 Indian Unicorns 2021: Valuation and Sector wise Analysis**

Name of the Company	Sector	Valuations (\$ Billions)
CoinDCX	Cryptocurrency Exchange	1.1
upGrad	Edtech - Higher Studies	1.2
MindTickle	SaaS - HR - Training	1.2
BharatPe	Fintech - Payments	2.8
OfBusiness	NBFC (SME Loans)	1.5
Droom	Marketplace - Used Cars	1.2
BlackBuck	Logistics Services	1
BrowserStack	SaaS - Software Testing	4
Zeta	Fintech - Enterprise Software - Neo Banking	1.4
Moglix	B2B E-Commerce - Industrial Equipment	1
Urban Company	Marketplace - Handyman Services	2.1
ChargeBee	SaaS - Subscription Billing Solution	1.4
Gupshup	Conversational Messaging	1.4
ShareChat	Social Media	2.8
Groww	Fintech - Brokerage & Mutual Funds	1
Pharomeasy	E-Commerce - Online Pharmacy	4
Cred	Fintech - Payments & Credit Card Rewards	2.2
Meesho	E-Commerce - Social Commerce	2.1
FirstCry	E-Commerce - Baby Care Products	1.7
Five Star Business Finance	NBFC	1.4
Infra.Market	B2B E-Commerce - Construction Materials	2.5
Innovaccer	SaaS - Healthcare Data Analytics	1.3
Digit	Fintech - General Insurance	3.5

Source: <https://www.ventureintelligence.com/Indian-Unicorn-Tracker.php>

From Table- 4 one can easily infer that the most attractive sectors for the unicorns in India are E-Commerce and Fintech in 2021 but SaaS (Software as a Service- is a way of delivery over the internet as a service. Services can be accessed through internet, without installing or

maintaining software and making consumers free from complex software and hardware management) is also making its place.

**Table - 8 Indian Unicorns- Top 10 (2021)**

Name of the Company	Sector	Valuations (\$ Billions)
BrowserStack	SaaS - Software Testing	4
Digit	Fintech - General Insurance	3.5
ShareChat	Social Media	2.8
BharatPe	Fintech - Payments	2.8
Infra.Market	B2B E-Commerce - Construction Materials	2.5
Cred	Fintech - Payments & Credit Card Rewards	2.2
Urban Company	Marketplace - Handyman Services	2.1
Meesho	E-Commerce - Social Commerce	2.1
FirstCry	E-Commerce - Baby Care Products	1.7
OfBusiness	NBFC (SME Loans)	1.5

Source: <https://www.ventureintelligence.com/Indian-Unicorn-Tracker.php>

Authors compilation

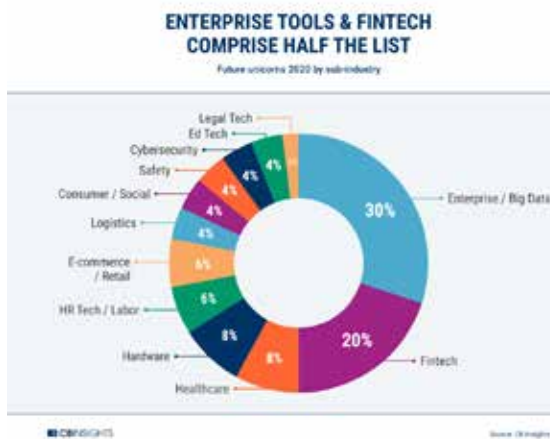
During 2021, BrowserStack working in SaaS- Software resting is the highest valued unicorn followed by Digit and Share Chat.

**V (iii): Trends in Future: Global Perspective**

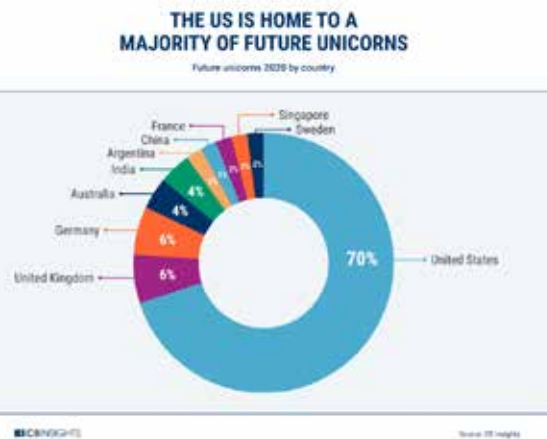
According to latest report of CB Insights “50 Future Unicorns” enterprise and big data tools will be dominating sectors in the coming years, around 30 percent of the companies working in these sectors will enter unicorn house soon. As far as, fintech will

account for 20 percent stake as international markets are largely boosting the fintech space, with 6 out of 10 featured fintech future unicorns are located outside U.S.A. Argentina (Uala) and India (CRED) are representative of emerging markets where fintech is gaining momentum. Next Sector will be health care and hard-ware with 8 percent representation each (Figure. -1)

**Figure-2**



**Figure-3**



It is further added that U.S.A that out of 50 future unicorns approximately 70 percent i.e., 35 unicorns

will be from U.S.A whereas Germany and UK are each home to 3 percent, India and Australia each will



claim 2 percent. It is interesting to note that according to the report Argentina, China, France, Singapore and Sweden each will represent 1 percent of future unicorn. (Figure-2) (CB Insights Webside, 2020)

## VI. Present Government Policy Initiatives and Indian Start-ups Ecosystem;

In recent years, the government of India has taken various measures to support start-ups including enlarging the scope of start-ups by broadening its definition, providing various income tax exemptions and setting up a Rs 10,000 crore Fund of Funds for start-ups operated by Small Industries Development Bank of India (SIDBI) (Economic Times, 2021). To facilitate the growth of Start-ups in India central government had announced “Start-up India, Stand-up India” initiative and “Industry-Academia Partnership and Incubation. Some of the latest measures taken by government of India are as follows;

- Start-ups Intellectual Property Protection (SIPP) scheme was started to enable start-up to take assistance from any empanelled facilitator to file and prosecute their application. As of June 2020, 510 patent facilitators and 392 trade mark facilitators have been empanelled to provide free of charge services to start-ups.
- The “Fund of Funds for start-ups (FFS) with a total corpus of Rs.10,000 crore was established. As of December 2020, SIDBI has provided Rs.4326 crores to 60 Alternate Investment Funds (AIFs) registered with SEBI (Securities and Exchange Board of India).
- As on November 2020, tax exemptions have been granted to 319 start-ups.
- Start-up Yatra initiative has been started to search entrepreneurial talent in Tier-2 and Tier-3 cities through day long bootcamps. A total of 1,424 incubation offers have been given to the start-ups as a result of this initiative.
- In addition, to encourage innovation in the sector and to motivate young generation to develop more technology based innovative products and services, 80 percent rebate has been provided in patent filing fees and 50 percent on trade mark filing fees. As a result, as of June 2020, 3618 patent applications were granted 80 percent rebate on the filing fee and 6832 trademark applications were granted a 50 percent rebate on filing fees (Economic Survey, 2021)
- Initiative like **Atal Innovation Mission (AIM)** was launched with an aim to provide R&D infrastructure to the budding entrepreneurs and researchers to promote innovation. With the AIM initiative, the Government is setting up some world-class laboratories and research incubators to foster innovation and research.
- In the initial phase of business, it requires huge funds to build the foundations of the business, and the government has realised this need and helps them by providing adequate finances from banks as credit in support of providing stability to the business in the initial phase. The scheme under this initiative is **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)** which provides the availability of bank finance without the hassles of collateral or third-party guarantees to help the first-generation entrepreneurs.

## VII. Major Conclusions;

With the government of India vision of Digital India, prowess of digital infrastructure and software development, India has the ability to outpace the other countries in the near future. There is not a day when a new unicorn is not born. It will not wrong to say that India is emerging as a start-up nation. Since 2011, the Indian start-up eco-system has scaled to become the third largest start-up hub in the world followed by the USA and China. It is observed that Covid-19 pandemic seems to have augmented the pace of start-ups entering

the unicorn club. Various venture capital investors and experts perceives that India is expected to have 150 unicorns by 2025 (Business Standard website, 2021). Large and diverse markets, technology innovation, disruptive propositions and extremely high-quality talent a few factors adding to the Indian start-up story. As a result, we have seen emergence of fast-growing companies across several sectors. Indian unicorns have emerged or still emerging from diverse sectors such as e-commerce, fin-tech, mobility, health care, analytics etc. These companies are working in both the categories i.e., enterprise as well as consumer focussed with different business models such as Business to Business, Business to Consumer and Business to Business to Consumer models. In addition, even during pandemic situation, these companies have grown exponentially. They are taking advantages of the changing consumer behaviour and quickly twisted themselves to cater to the changing needs of the consumers. Leveraging new-age technologies such as artificial intelligence, data analytics, big data, robotics etc these new age start-ups are working towards bridging wide -range gaps that were introduced in the market and fulfilling consumer/customer demand for digital which accelerated their growth path (Fortune India, 2021).The factors contributing to the rise of Indian unicorns are: increasing internet penetration and digital payments, availability of private equity funds, more robust infrastructure, the rising pool of skill talent and easy availability of foreign funds. It is interesting to note that despite Covid-19 pandemic badly disrupting the Indian economy 22 start-ups have already entered the unicorn club in 2021. In this context, the role of the government cannot be ignored, India's changing reform measures and policies have helped the Indian start-ups to scale up. The inflows of foreign exchange especially from leading tech companies into the Indian start-up eco-system signals the immense potential of the domestic market. In recent time periods, business models becoming more complex and inter-related and therefore, regulators and policy makers have to play more supportive role in formulating the appropriate

regulations that are directed towards encouragement to innovation and support emerging business models rather than acting as an obstacle to it (Business Line, 2021) . It is not wrong to say that cultural diversity and large pool of young and educated techno savvy youth is our strength. But at the same time, India should also focus on the economic mobility, economic inclusivity, equal access to opportunities and resources and ecological vitality.

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# Perception of Indian Cuisine as a Tourist Attraction: A Study on Foreign Tourists visiting India

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**Abstract :** *Indian cuisine has a history that is 5000-year old that encompasses different cultures that are interconnected in a way that leads to cuisine diversity. Indian delicacies are acknowledged all over the world for their taste, different flavors and diversity. The roots of Indian cuisine are deeply imbedded into Indian history because over a passage of time, each region has developed a unique set of dishes using a wide range of spices, unique ingredients combined with unique cooking styles. The motive of this study is to explore whether foreign tourist who visit India really believe that Indian cuisine is attractive or not. The results of the study revealed that there was a significant positive increase in the perceptions of foreign tourist after trying Indian cuisine. Variables that had positive higher perceptions were rich taste and flavor of food items, positive food experience, value for money, variety in menu, visual attractiveness, sufficient portion sizes, use of fresh ingredients and moderate price of food items. The statistical analysis inferred that the foreign tourists do consider Indian cuisine as tourist attraction.*

**Key words:** Perception, Indian Cuisine, Foreign Tourist, Attraction, India

## Introduction

According to **Hassan (2008)** cuisine of a destination is considered as a constitutive element that represents the impalpable heritage of a destination. **Bessiere (2009)** concludes that local cuisine of a destination is deeply embedded into its culture and the character and the frame of mind of the people of that region is revealed by the culinary practices of the region. Because of this the overall image of the destination is entrenched by the

cuisine of the destination (**Crofts, 2010**). As culinary experience is an inseparable aspect of the tourists' travel experience (**Rimington and Yüksel, 1998**) it helps in constructing and uplifting the culinary image of a destination which if deemed positively may lead towards the long-term destination competitiveness (**Lin et al., 2011**). With change in time food consumption for tourists is not a basic requirement anymore but become a way to satisfy physiological needs (**Burusnukul, Binkley, and Sukalakamala, 2011**). **Drewnowski and Moskowitz (1985)** have emphasized on importance of visual attractiveness of the food offerings as motivating factor for tourist to try a particular food item. **Quan & Wang (2004)** stated that the tourists are motivated to try new cuisine to have variety and cherish the memorable experience of unfamiliar food items that leads to achieving peak travel experience. In the opinion of **Kim, Eves, and Scarles (2008)** the factors that motivate the tourists to try local cuisine are physical, cultural and status and prestige of the tourist. **Jang et al. (2009)** have stated that sensory perceptions and nutritive value of the food item is what tourists are attracted towards more. According to **Baker and Crompton (2000)** for majority of tourists, price of the dishes is the primary factors contributing towards overall satisfaction followed by restaurants quality of service and quality of the food products. **Namkung & Jang, (2007)** have attested food quality as the primary factor leading to overall satisfaction based on dining experiences of the tourists asserting that food quality encompasses several

features like taste, freshness, presentation, nutrition value, variety or diversity, and temperature. According to **Ma et al. (2011)** key attributes that contribute towards overall satisfaction of the tourists are taste and variety of food items, authenticity, food aroma, food presentation, hygiene, prompt and friendly service, décor, ambience and cleanliness of the eating place and value for money.

### Literature Review

For more than two decades academicians have shown a huge interest in identifying and exploring food gastronomy as a branch of the tourism and hospitality research field. A considerably large number of publications were found concerning the relationship between food of a tourist destination and tourists' travel experiences and perceptions of people about food of a region.

### Role of food in tourism

**Kyriakaki et al (2016)** proved that the use of local products helps in the promotion of local cuisine and subsequently the preservation of traditional skills and region's culinary heritage. It also helps in high customer satisfaction and creating an authentic dining experience for the tourists that leads to the tourists spending more on specialized food products. **Sormaz et al (2015)** confirmed that gastronomy of a region helps in the regional development by making a strong bond between food and tourist activities. It strengthens the regional identity and helps in safeguarding cultural heritage of the region. **Henderson (2014)** concluded that food of a region represents the ethnic identity of a destination through its heritage. The food heritage of a region connects the tourists to the past of that region and enables the tourists to connect with the local people and know more about a destination through authentic taste of local food offerings. According to **Tikkaanen (2007)** food in the tourism industry has been recognized as a part of the local culture, which tourists consume, a part of tourist promotions, potential component of economic development and an important regional

factor that influences the consumption patterns and food preferences of tourists.

### Food and dining experiences of tourists

According to **Björk and Kauppinen-Räsänen (2014)** authentic and original local dishes, new food experience, atmosphere and environment of the dining place are the key factors that significantly contribute towards overall positive food experiences. Apart from these factors local food culture and dining aesthetics are also helpful in facilitating a memorable culinary experience. **Updhyay and Sharma (2014)** concluded that foreign tourist preferences can be segregated as five dimensions: 1) Food taste and quality 2) Food preparation 3) Local food offerings and dining etiquettes 4) Food tradition and nutritive value and 5) Food aroma and cleanliness; out of which food taste and quality and traditional and local food offerings are the most dominant. **Chang, Kivela and Mak (2011)** revealed that factors like taste and flavor of the local food offerings, cooking methods, authenticity and variety in the menu are the key determinants of customer satisfaction. Other factors that greatly influenced the levels of dining satisfaction of the tourists are service staff communication with the guests, attitude of the service staff and service speed. **Kim, Eves and Scarles (2009)** asserted that the tourists try the local food of the destinations to get exciting and authentic experience of the food and learn more about the culture. Other factors that affect the decision making are health concerns, food sensory appeal and physical environment of the food outlet.

### Food and tourist satisfaction

**Chi et al. (2013)** attested that tourist's perceived food image directly influences the customer food satisfaction and his culinary experience. Food satisfaction increases the culinary experience and positively influences a tourist behavioral intention toward the food of that region. **Ab Karim et al (2011)** highlighted that attributes of quality, variety and authenticity of food help in constructing the food image of a particular cuisine and

overall satisfaction of customer. Attribute of food core value like price, service quality, ingredients used and food choice and food accessibility play a strong role in customer food satisfaction. When it comes to customer behavioral intentions customers look for variety in the cuisine rather than try the same food items again and again. **Nield et al. (2000)** proved that considerable differences exist between tourist groups' satisfaction with regard to perceptions of value for money, quality of food, number of dishes, food service standards, and variety of dishes, food presentation and service speed. They further conclude that food service contributes strongly towards tourist satisfaction during their holiday trips and attributes like food quality, food presentation, variety, value for money, considerably affect the overall food service experience of the tourist.

#### **Food as a Tourist attraction**

**Björk and Kauppinen-Räsänen (2016)** highlighted that food of a destination can attract tourist as per their food related attitudes and desired culinary conversance can be facilitated by understanding their dining behavior. **Kumar (2016)** manifests that the rural regions have a lot to offer in terms of its splendid authentic regional delicacies but are unable to capitalize the regional tourist market due to lack of promotion and branding. This can be done by identifying the regional dishes and present their provincial cooking style through live kitchens in craft festivals, regional events, dance festivals, cultural programs, film festivals and exhibitions all across the country. **Richards et al (2015)** highlighted that factors like core eating behavior, assured taste of own food and familiar flavor are the factors that strongly motivate the tourists to stick to their own cuisine rather than trying unfamiliar food. However the factors that motivate the tourists to consume local food of a destination are exploring local culture, savoring authentic travel experience, new cuisine learning opportunity, influence from references of friends and internet. **Banerjee (2015)** asserts that the cuisine of the country is very popular among the tourists

as it provides endless varieties. The use of amalgam of different spices and herbs and traditional cooking style can cure man upsetting of the body and satisfy people both internally and externally. According to **Kivela and Crofts (2006)** culinary experiences are intimately linked to a region and provide the necessary impetus in building the culinary image of that region. Culinary offerings of a region decide how tourists perceive that destination. Destination food offerings increase the likeliness of tourist to revisit that destination to enjoy its unique delicacies again. **Hjalager and Corigliano (2000)** revealed that factors like distinctive culinary specialties, use of fresh products, food quality control, emphasis of food contamination and strict control over health issues create positive image of a cuisine among tourists.

#### **Food and Perception**

According to **Li et al (2013)** perception is conscious act of seeking information through our senses. When it comes to food, food images are used as used as a tool to elicit perceptions based on food taste experiences. **Okajima, and Spence (2011)** conclude that food images create different taste perception for different people based on their differences in expectations. **Chi et al. (2013)** attested that tourist's perceived food image directly influences the customer food satisfaction and creates a positive food experience which in turn positively influences a tourist behavioral intention toward the food of that region. The perceived expectation about the food taste is strongly influenced by visual impressions of food items which in turn influences their actual taste (**Gayler and Sas, 2017**). **Zellner et al (2011)** postulated that there is a higher acceptance of food items among consumers when they are presented in a well arranged manner. The neat and attractive visual appearance of the food items creates a positive perception about the food quality. According to **Michel et al (2014)** the sensory perception of a customer about a dish is influenced by the expectations through visual clues. However there is difference in the expectation and the actual food

consumption experience. A well planned artistic display of the food item creates a positive perception about the dish even before trying. However when that dish is actually presented to them the way they expected and consumed, it enhances their assessment and perception about that dish in a positive manner. A recent study conducted by **Kim et al. (2021)** reveals that cognitive cuisine information acquisition and prior knowledge formation jointly influence the food tasting experiences of the tourists. Textual and visual information regarding cuisine can be achieved through standing text panels, animated videos and pictures, traditional drawing and paintings and other multimedia tools. When these factors are combined with actual visual appearance and food taste they greatly impact the food taste experiences develop a food taste perception about the cuisine.

Studies mentioned in different segment above have proved that food of a destination reflects the tradition, lifestyle and culture of that region and plays key role in attracting tourists and providing memorable culinary experiences that affects overall satisfaction of tourist. Therefore we can conclude that cuisine is an integral aspect of collective travel experience and attractiveness of cuisine contributes significantly in promoting tourism. But so far no strong study has been conducted from the perspective of foreign tourists visiting India that describes that Indian cuisine or food can be considered as an important tool in attracting tourist.

### Objectives of the Study

**The study has following objectives:**

1. To study the difference in perceptions of foreign tourists about Indian cuisine before trying it and after trying it.

2. To study the potential of Indian cuisine as a tourist attraction.

### Hypotheses of the Study

1. H<sub>1</sub>: There is significant difference in perceptions of foreign tourists about Indian cuisine before trying it and after trying it.
2. H<sub>2</sub>: Foreign tourists do consider Indian cuisine as a tourist attraction.

### Research Methodology

For data collection 10 different cities were covered which include Shimla, Manali, Amritsar, Chandigarh, Jaipur, Agra, Varanasi, Rishikesh and Haridwar. Non probability convenience technique of sampling was employed by the researcher where the probability of selection of each sampling element was not known (Alder & Clark, 2006). The researcher was able to approach 432 foreign tourists successfully who filled the questionnaire completely. All the respondents were adult and had tried Indian cuisine during their visit.

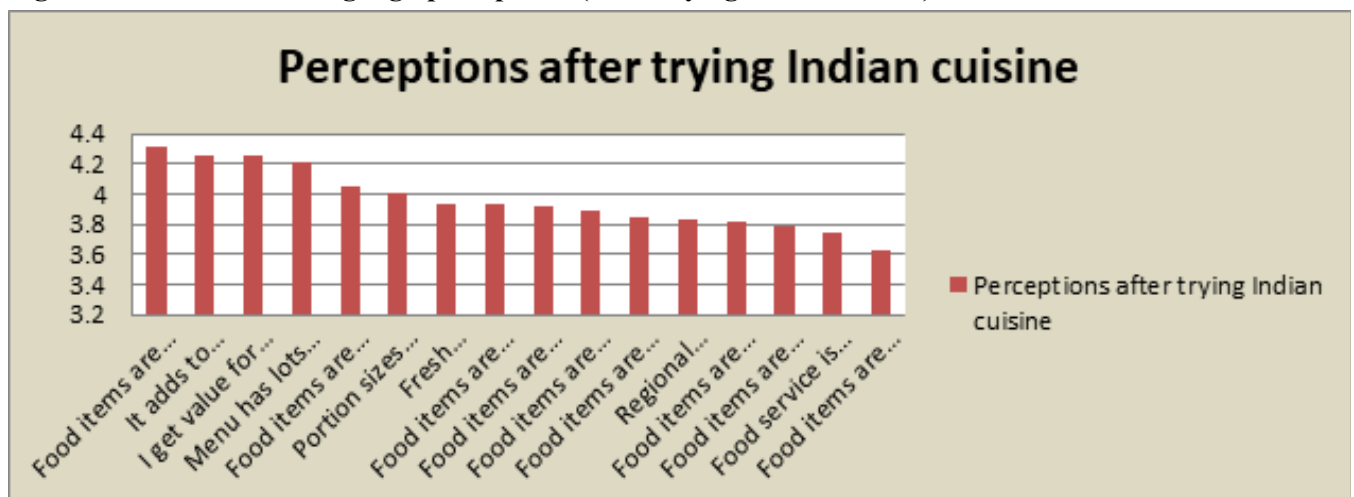
### Result and Analysis

In order to prove our 1<sup>st</sup> hypothesis a paired a paired t-test was applied to determine the significant difference in perception of foreign tourist regarding Indian cuisine before and after trying it. The mean score of perception of foreign tourist is presented in table 1 displaying the statistical inference in the form of mean, standard deviation, perception gap, t- value, sig. value (2 tailed).

Table 1: Perceptions of foreign tourists before and after trying Indian cuisine

Sr. no	Attributes of Perception	Perception before trying		Perception after trying		Gap	t-Value	Sig.(2 tailed)
		Mean	SD	Mean	SD			
1	Fresh ingredients are used in food preparation	3.89	2.86	3.93	0.809	0.046	0.329	.742**
2	Food items are tasty and richly flavored	3.95	0.823	4.31	0.700	0.365	9.078	.000
3	Food items are healthy and safe to consume	3.39	0.890	3.85	0.837	0.453	9.238	.000
4	Food items are easy to digest	3.33	0.870	3.63	0.880	0.293	5.982	.000
5	Food items are visually attractive / colorful	3.87	0.834	4.05	0.832	0.178	3.811	.000
6	Food items are well garnished / well presented	3.66	0.790	3.89	0.867	0.226	4.871	.000
7	Food items are convenient to consume	3.53	0.827	3.81	0.816	0.280	6.240	.000
8	Portion sizes are sufficient	3.62	0.857	4.00	0.945	0.372	7.142	.000
9	Menu has lots of variety	3.93	0.906	4.21	0.856	0.28	5.755	.000
10	Regional dishes are included in the menu	3.71	0.906	3.82	0.982	0.111	2.066	.039
11	Food items are traditional and ethnic	3.78	0.787	3.91	0.907	0.127	2.856	.004
12	Food items are authentic and exotic	3.72	0.882	3.79	0.969	0.064	1.307	.192**
13	Food items are moderately priced	3.75	0.937	3.93	0.975	0.189	3.563	.000
14	Food service is quick and efficient	3.54	0.835	3.74	0.977	0.199	3.869	.000
15	I get value for money paid	3.85	0.817	4.25	0.721	0.402	9.483	.000
16	It adds to positive food experience	3.93	0.807	4.26	0.713	0.324	8.012	.000
	<b>Overall mean</b>	<b>3.72</b>	<b>0.977</b>	<b>3.96</b>	<b>0.862</b>	<b>0.244</b>		

Figure 1: Variables showing high perceptions (After trying Indian cuisine)



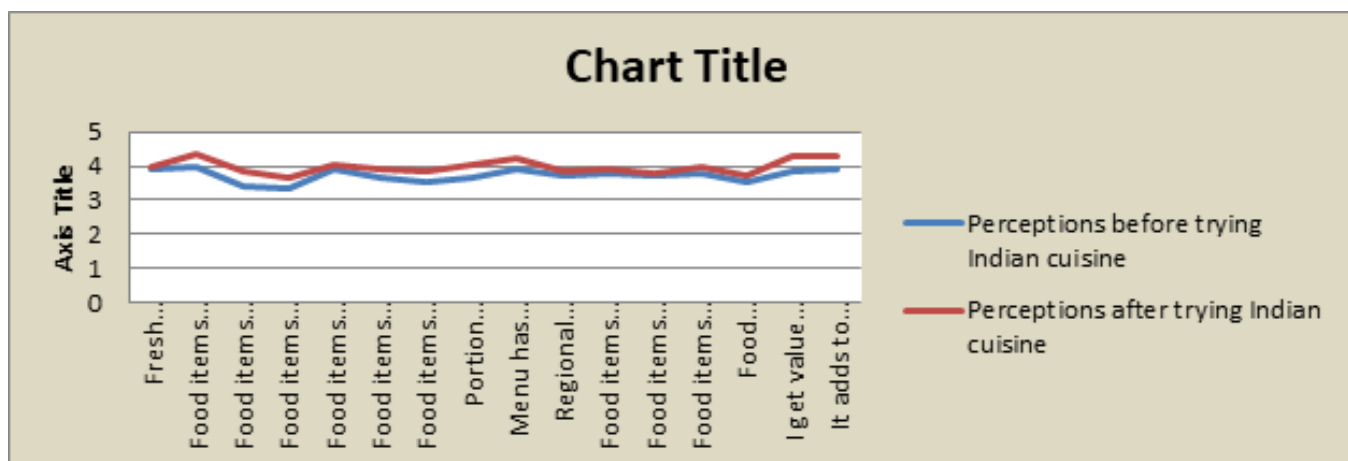


### Perceptions of foreign tourist after trying Indian cuisine

The data displayed in figure 1 shows that the tourists have high perception about the “rich taste and flavor of food items (4.31)”, followed by “positive food experience (4.26)”, “value for money (4.25)”, “variety in menu (4.21)”, “visual attractiveness (4.05)”, “sufficient portion sizes (4.00)”, “use of fresh ingredients (3.93)” and “moderate price of food items (3.93)”. Similarly foreign tourists have moderate perception about whether food is “traditional and ethnic (3.91)”, ‘well

garnished/ decorated (3.89)”, “food items are healthy and safe to consume (3.85)”, and “inclusion of regional dishes in the menu (3.82)”. Attributes like “food items are convenient to consume (3.81)”, “food items are authentic and exotic (3.79)”, “food service is quick and fast (3.74)” and “food items are easy to digest (3.63)” are perceived very low by foreign tourists. This explains that attributes stakeholders need to focus more on providing fast and efficient food service to the tourists and at the same time they have to work upon developing new products that are convenient and safe to consume and easy to digest.

**Figure 2: Difference in perceptions of foreign tourists about Indian cuisine before and after trying it**



### Difference in perceptions of foreign tourists about Indian cuisine before and after trying it

To determine the differences in perception of foreign about Indian cuisine before and after trying it GAP analysis was done. It is done by subtracting the mean values of perceptions before trying Indian cuisine from mean values of perceptions after trying Indian cuisine. The GAP analysis showed that all the attributes of perception after trying Indian cuisine had higher mean value as compared to the attributes of perception before trying Indian cuisine. This concludes that the actual experience of the foreign tourists was on positive side from what they had expected from the food offerings. The difference between the actual experience and expected experience is clearly visible from figure 2.

By analyzing the results of the paired t- test (table 1) it is clearly evident that out of 16 variables there are only 2 variables ( \*\* values in table 1) namely “Fresh ingredients are used in food preparation( .742)” and “Food items are authentic and exotic(.192) who have p-value greater than 0.05. Corresponding these results to our 1<sup>st</sup> hypothesis it is evident that there has been a positive increase in the perception of foreign tourists after trying Indian cuisine as the actual experience exceeded their expectations. Thus alternate hypothesis ( $H_1$ ) is partially accepted.

To test our 2<sup>nd</sup> hypothesis (Foreign tourists do consider Indian cuisine as a tourist attraction) a multiple linear regression was done on the collected data at 95% confidence level. Before applying regression analysis, the data was tested for outliers, normal distribution, data linearity, homoscedasticity and autocorrelations.

**Table 2: Residual statics for multiple Regression**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.0152	4.7316	3.9117	.31424	432
Residual	-1.83884	1.02998	.00000	.40241	432
Std. Predicted Value	-2.853	2.609	.000	1.000	432
Std. Residual	-4.564	2.557	.000	.999	432
<b>a. Dependent Variable: Cuisine Attractiveness</b>					

Analysis of standard residuals (table 2) for outliers show that the minimum value of standard residual is above -3 and maximum value is below 3 indicating that the data had no outliers. After checking and meeting the assumptions successfully a linear multiple regression was applied.

**The regression equation used for analysis:**  
 Cuisine Attractiveness =  $\alpha + (\beta_1 \times \text{Attributes of Indian cuisine})$

**Table 3: Linear regression between Cuisine Attractiveness and Attributes of Indian cuisine**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.615 <sup>a</sup>	.379	.377	.40287	1.700
<b>Predictors: (Constant), Attributes of Indian cuisine</b>					
<b>Dependent Variable: Cuisine Attractiveness</b>					

Data displayed in table 3 indicated that  $R^2 = .379$  which means that 37.9 % of the total variance in the Cuisine Attractiveness is explained by the attributes of Indian cuisine in the model.

**Table 4: ANOVA for linear regression between Cuisine Attractiveness and Attributes of Indian cuisine**

MODEL		Sum of Squares	df	Mean Square	F	Sig.
<b>1</b>	Regression	42.560	1	42.560	262.220	.000 <sup>b</sup>
	Residual	69.792	430	.162		
	Total	112.353	431			
<b>Dependent Variable: Cuisine Attractiveness</b>						
<b>Predictors: (Constant), Attributes of Indian cuisine</b>						

As shown in table 4 the F-statistic is 262.220 with p-value 0.000 which indicates that the model is statistically significant.

**Table 5: Predictors of Cuisine Attractiveness in significant regression model**

Model B		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	.660	.202		3.274	.001
	Attributes of Indian cuisine	.823	.051	.615	16.193	.000

By looking at the unstandardized coefficients in table 5, it is concluded that every one unit increase in the independent variable results in .823 unit increase in the dependent variable while keeping other variables constant. Looking into the standardized coefficients, attributes of Indian cuisine had .615 unit influences on Cuisine Attractiveness. The p-value (0.001) of the slope coefficients of t statistics (3.274) is less than 5% significance level which means that significant relationship has been observed between the attributes. Further for attributes of Indian cuisine p-value is significant (<0.05), which means there is significant relationship between Indian cuisine attributes and the Cuisine Attractiveness. Hence our alternate hypothesis (H<sub>2</sub>) is accepted.

### Conclusion

The study was conducted with the purpose to understand the perception of foreign tourist regarding Indian cuisine as a tourist attraction. The deciding variables of the study were the attributes of Indian cuisine that motivate the foreign tourists to try Indian cuisine and the attribute of perception. The statistics revealed that there was a positive increase in the perception of foreign tourists after trying Indian cuisine indicating that for 14 attributes of Indian cuisine, the actual experience of the tourists exceeded their expectations. The attributes that had high score were rich taste and flavor of food items and positive food experience followed by value for money, variety in the menu and visual attractiveness of the food items. The results of the study further revealed that more focus is required on providing fast and efficient food service to the tourists and new products needed to be developed that are convenient for foreign tourist to

consume. Results of the regression analysis confirmed significant relationship between the attributes of Indian cuisine and Cuisine Attractiveness. This proves that foreign tourists are satisfied with their food experience and have positive perception about Indian cuisine. Therefore it is inferred that foreign tourists do consider Indian cuisine as a tourist attraction.

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# Psychological Empowerment in Nepalese Service Sector

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**Abstract:** Service sector industries are increasing nowadays which has led organizations seeking for more knowledgeable and empowered employees as the involvement of employees in providing services ensures organizational survival to large extent. Based on these, this study has used well-grounded theories to measure the real situation of psychological empowerment in the service sector. Menon's (2001) three component model of psychological empowerment consisting of goal internalization, perceived control and perceived competence with fifteen items has been used for measuring psychological empowerment. Four industries i.e. Health, Telecommunication, Airlines and Education under which 12 organizations from both public and private sectors have been selected for the study. Altogether 640 employees have been defined as samples and among the selected samples, 437 respondents have responded completely which are taken for the further analysis. Confirmatory factor analysis has been done to confirm the items taken into consideration using AMOS 21. Descriptive and inferential analysis has been done to achieve research objectives and to test the proposed research hypotheses. Employees of Nepalese service sector are found to be psychologically empowered confirming the presence of goal internalization, perceived control and perceived competence at significant level. This search could provide an insight for knowing the real situation of psychological empowerment of employees in service sector. As well this research can act as a reference to those who want to do further research in the field of psychological empowerment.

**Key words:** Goal internalization, Perceived control, Perceived competence, Psychological empowerment

## Background

Over the past three decades, "empowerment" has attracted the interest of many organizational theorists

and management practitioners (Conger and Kanungo, 1988; Thomas and Velthouse, 1990; Wall et al., 2004; Spreitzer, 1995; Menon, 2001; Choong et al., 2011; Baird and Wang, 2010, Ghimire and Gautam, 2016; Gautam and Ghimire, 2017). It is a process of enhancing feelings of self-efficacy among organizational members (Lee and Koh, 2001) to take an independent autonomous decision on how to deal with a particular situation. Psychological empowerment is creating a stage in which motivational construct manifested in cognitions reflecting an employee's orientation to his or her work roles (Berman, 1995; Byham, 1992; Laschinger and Finegan, 2005, Gautam and Ghimire, 2017). Importance of empowerment in service organizations is even well addressed by many researchers (Lashley, 1995; Spreitzer et al., 1997; Conger and Kunango, 1988; Singh and Dixit, 2011; Jose and Mampilly, 2014; Khalili et al., 2016; Gautam and Ghimire, 2017; Bhandari, 2013) due to increase in the demand of the services day by day.

Increment in the demand of the services by the customers in comparison to the products has led to the prosperity of the service industry and this has created a radical shift in the contributions of service sector in the world GDP. In 2015, services' value added accounted for 14% of GDP in high income countries up from 69% in 1997. The increase in services' share of GDP is ever more permanent in low and middle income countries, where it jumped to 57% in 2015 from 48% in 1997 (Deloitte insights, 2018). Not only this, the contribution of developing economies to trade in services grew by

more than 10 percentage points between 2005 and 2017 as well as more than 70 percent of the employed labor work in the service sector in 2017 (Deloitte insights, 2018).

In this context, Nepalese economy is also following the some of the dynamics of world economy through constant increment of contribution of service sector in the gross domestic product (GDP) of Nepal. Service sector in Nepal, in 2018, has contributed 57.4 percent of her GDP (Economic survey, 2019/20). To capitalize the opportunities provided by the expansion of service sector, it is crucial to know the status of psychological empowerment and its components as employees' empowerment play a vital role in service development and dissemination.

### Statement of the Problem

The world is in the midst of a radical shift accounted by sharp increments in the contribution of service sector in the world GDP. In respect to this, service sector industries are increasing all over the world and Nepal is not the exception. There are lots of opportunities for service organizations demanding for high level of competitive advantage (Berry and Lampo, 2004; Halawi et al., 2005) in order to create the long term sustainability of service organizations. Giving due attention to the quality of heterogeneity of services being provided as well as the quality of the heterogeneity of service providers responsible for creating the different services and their delivery, importance of psychological empowerment of those employees is crystal clear (Kruja and Oelfke, 2009; Wanjau et al., 2012; Pereira et al., 2016).

From the review of different researches in Nepalese context there seems dearth of researches in the field of psychological empowerment in service sector. Adhikari (2015); Bhandari (2013); Ghimire and Gautam (2016) and Gautam and Ghimire (2017) are the limited researches that have been carried out in the Nepalese context. This research has been carried out to add value to the works done by these researches and to find the

present status of psychological empowerment in service sector taking into consideration the different four industries. In this context researcher tries to find out the answer to the following question:

What is the status of psychological empowerment in Nepalese service industries?

### Objectives of the study

Service delivery demands the active interaction of employees and customers and the quality of the service is heavily influenced by the behavior of employees as well as customers. Employees are considered to satisfy the employees through the delivery of the services developed and provided by them on behalf of the organization they are working for. For this reason, it becomes their responsibility to understand the expectations of the customers and behave accordingly. So why, it is necessary that they have to be empowered (Spreitzer, 1995; Thomas and Velthouse, 1990; Thomas and Tymon, 1994; Kankanhalli et al., 2005, 2011; Kim and Ok, 2010; Bhandari, 2013; Ghimire and Gautam, 2016; Gautam and Ghimire, 2017)

But the problem is that enough researches has not been done in the Nepalese context to explore the actual status of dimensions related to psychological empowerment as well as to find the relationship between those dimensions (Adhikari, 2015; Bhandari, 2013; Ghimire and Gautam, 2016; Gautam and Ghimrie, 2017, Pangen and Ghimire, 2016).

In this perspective, this research has tried to find the present status of psychological empowerment in service sectors related to different industries. Along with this, this research has tried to find relation between dimensions of psychological empowerment developed by Menon. This study will provide scopes for strengthening service organizations on the field of psychological empowerment for the managers, employees, future researchers, policy makers, investors, customers and other stakeholders to develop the appropriate strategies.

## Research Hypotheses

Following hypotheses have been developed to attain the stated objectives.

H1: There is presence of goal internalization as a component of psychological empowerment in Nepalese service sector.

H2: There is presence of perceived control as a component of psychological empowerment in Nepalese service sector.

H3: There is presence of perceived competence as a component of psychological empowerment in Nepalese service sector.

## Review of Literature

The concept of empowerment was first introduced in 1980s (Conger and Kanungo, 1988; Bennis and Nanus 1985) but in 1990s the concept received great interest among researchers, academicians and practitioners of organizational management (Thomas and Velthouse, 1990; Spreitzer, 1995). Organization and management focused scholars and researchers in the 1990s define empowerment of human resources as management strategies and actions like delegating power and decision making authority to lower ranks of the organization, sharing information with employees and providing access to enterprise resources for them (Bowen and Lawler, 1992; Spreitzer, 1995; Behroozi et al., 2012; Gilbert et al., 2010; Ghosh, 2013; Heller, 2003; Rahnavard, 2003).

Quinn and Spreitzer (1997), called this approach of the empowerment as the mechanic approach. But, from the 1990s onwards, organizational psychology experts have considered empowerment of human resources as a complex and multidimensional concept. Researchers have distinguished between the situational characteristics (the managerial measures) and employees' perceptions of these features (Thomas and Velthouse, 1990). Conger and Kanungo (1988) have proposed that management measures are the only set of conditions that can

empower employees, but this is not necessarily the case of empowering employees. Delegation of authority and decision-making powers by senior managers to lower level staff is not empowerment. Researchers after 1990 study the concept in terms of beliefs and emotions of employees (Quinn and Spreitzer, 1997; Thomas and Velthouse 1990; Ford and Fottler 1995). Menon (2001) acknowledged that empowerment is a multi-dimensional concept and has several different meanings for different people. Quinn and Spreitzer (1997) called this approach the organic approach.

Thomas and Velthouse (1990) recognized psychological empowerment as an inner motivation factor which reflects employees' active role in organization. Psychological empowerment enables employees to differentiate management methods and organizational factors (Shariati and Samani, 2013). In the same line, psychological empowerment has been defined by many other researchers and have tried to explore the relationship of psychological empowerment with other variables as Bektas and Sohrabifard, 2013; Chang and Liu, 2008; Fernandez and Moldogaziev, 2011; Feizi and Zolfaqari Moqadam, 2008; Ro and Chen, 2011; Spreitzer, 1995; Whetten and Cameron, 2002; Menon, 2001; Bhandari, 2013; Ghimire and Gautam, 2016; Gautam and Ghimire, 2017, Rafiee and Khorasgani, 2018; Ratnasari and Sudarma, 2019; Helmy et al, 2019; Karegar and Barimari 2019; Amirghodsi and Bonyadi, 2019; Khan et al., 2020; Azlan and Wahab, 2020; Aryani and Widodo, 2020).

Menon (2001) on the basis of the previous literature identified three dimensions of psychological empowerment as goal internalization, perceived competence and perceived control. And this has become the basis for the study of psychological empowerment under this study. Here, goal internalization address the variables meaning and trust, perceived competence address the variables competence and impact whereas perceived control address the variables autonomy. According to Bennis and Nanus (1985) critical

dimensions of empowerment include significance, competence, community and enjoyment. Feeling of significance, community and enjoyment reflect the appeal of ideas and goal internalization. Leaders formulate and articulate future goals that serve to energize and hence empower subordinates to the extent that these goals are internalized (Kanungo and Medonca, 1996; Bass, 1985; House, 1988; Burns, 1978; Menon, 2001). Empowered employees feel confident and can control their environment. Empowerment strategies such as increased participation, respect and feeling of ownership, access to information and strategies lead to a sense of perceived control (White, 1959; McClelland, 1961; Winter, 1973; De Charms, 1968; Deci, 1975; Kanter, 1983; Thomas and Velthouse, 1990; Spreitzer, 1995; Menon, 2001). Perceived competence is an employee's belief in his or her capability to perform task activities skillfully. It refers to the knowledge that the individual has the skill required to successfully perform the task in a specific area or for specific purposes. Without the sense of confidence in their abilities, employees will likely feel inadequate and less empowered. Self-efficacy, self-determination or choice, impact refers to employees' perception regarding competence and is well addressed by the literature (Bandura, 1977; Wood and Bandura, 1989; Bennis and Nanus, 1985; Conger and Kanungo, 1988; Pangenji and Ghimire, 2016; Bhandari, 2013; Gautam and Ghimire, 2017; Ghimire and Gautam, 2016, Ghimire, 2016, Yen et al., 2016; Karegar and Barimari, 2019; Khan et al., 2020)

**Table 1: Previous study on psychological empowerment**

Author (Year)	Objectives/ Findings
Kanter (1979)	Individual attitudes and behaviors were shaped primarily in response to their positions within an organization
Spreitzer (1995)	Develop and validate a multidimensional measure of psychological empowerment
Menon (2001)	Research adds clarity to empowerment research by explicitly defining empowerment as a cognitive state

Yukl and Becker (2012)	To be sustained, empowerment needs to be a part of the long-term strategy of the organization
Kahreh et al. (2011)	Analysis showed that employees' empowerment have highly positive impact on the competitive advantage for the organizations that are related to service sector
Inyang (2011)	The effective management of people in organizations is a driving force in the transformation process that enhances the achievement of a competitive advantage, which sets the enterprise ahead of others
Ambad (2012)	Self-determination and impact have positive relationship with the organizational commitment, whereas meaning and competence do not have significant positive relationship with the organizational commitment
Bhandari (2013)	Psychological empowerment is responsible for increasing competitive advantage
Adhikari (2015)	Psychological empowerment contribute positively towards the increase in employees' performance
Yen et al., (2016)	Psychological empowerment is recognized as an important antecedent of service orientation
Ghimire (2016)	Psychological empowerment have significant positive impact on the competitive advantage among teachers of University
Ghimire and Gautam (2016)	Psychological empowerment plays a vital role in increasing competitive advantage of service industries
Karegar and Barimari (2019)	Psychological empowerment could be increased by making University teachers more competent through knowledge sharing

## Research Methodology

This research has followed the deductive approach to research and is quantitative in nature. Analytical and descriptive research design has been adopted for analyzing data. Primary data required for the study is collected through structured questionnaires and the sources are the employees of the targeted industries which are Education, Hospital, Telecommunication and Airlines. For the selection of the organizations under different industries, purposive, judgmental and convenient sampling method is used. Both public and private organizations are taken into consideration for the study i.e. six public and six private based on the number of organizations under each industry within



the Kathmandu valley only, so the results are to be generalized with due consideration.

Questionnaires are randomly distributed to the employees of the considered industries. Total 640 questionnaires are distributed among which 450 are returned but 437 are considered for analysis as some of the returned responses were not appropriate for analysis. In organizations under all industries except education industry sixty questionnaires are distributed but in education industry forty questionnaires are distributed as only about fifty employees are working in those organizations. Data used for this study is obtained through the instrument developed by Menon (2001) which is also used for the study done by Bhandari (2012, 2013), Ghimire (2016); Ghimire and Gautam (2016); Gautam and Ghimire (2017) and this instrument consists of three components as psychological empowerment, perceived control and perceived competence with five items to measure each i.e. 15 items in total. The reliability and the validity of the study findings are based on the reliability of the information obtained from the respondents using mentioned instrument.

Confirmatory factor analysis is done for effective analysis of the items. Reliability test is performed by using Chronbach's alpha coefficient for primary data. Various software such as Excel, SPSS 21 and Amos 21 are used for data entry and analysis. Different descriptive as well as inferential statistical tools are used for data analysis.

## Analysis

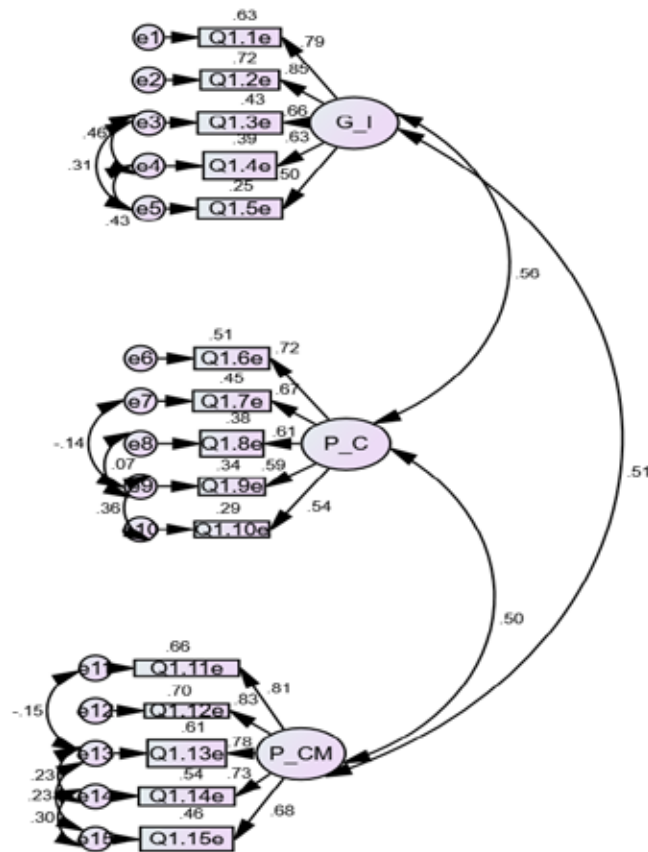
From the confirmatory factor analysis, three items among five for goal internalization, four items among five for perceived control and three items among five for perceived competence are confirmed. For all the three variables, p values are greater than 0.05 showing the fit of the model and all the criteria necessary for model fit i.e. Chi-square/DF, GFI, AGFI, NFI, CFI, RMR, RMSEA are met to fit the model and confirmed the items when done separately as well as when done combined.

For the factor goal internalization (GI), confirmed items are inspired by organizational goals (.72) with factor loading of .85; organizational achievements (.63) with factor loading of .79 and enthusiastic towards organizational objectives (.43) with factor loading of .66. For the factor perceived control (PC), confirmed items are I can influence the way the work is done in my department (.51) with factor loading of .72; I can influence the decisions taken (.45) with factor loading of .67; I have the authority to make decisions (.38) with factor loading of .61 and important responsibilities are part of my job (.29) with factor loading of .54. For the factor perceived competence (PCOM) confirmed items are I have the capabilities (.66) with factor loading of .81; I have the skills (.70) with factor loading of .83 and I can efficiently do my work (.54) with factor loading of .73. Results are shown with the help of table 1 and figure 1. Chronbach's alpha for the items of the concerned factors are more than 0.80.

**Table 1: Confirmatory factor analysis for dimensions of psychological empowerment**

Factors	Chis-square	DF	Probability level	Chisquare/DF	GFI	AGFI	NFI	CFI	RMR	RMSEA	Chronbach alpha after CFA
Goal internalization, Perceived control and perceived competence	286.991	77	0.261	3.73	0.995	.981	0.993	0.999	0.024	0.019	0.764

**Fig. 1: Confirmatory factor analysis for dimensions of psychological empowerment**



**Correlation between the dimensions of psychological empowerment and psychological empowerment:**

**Table 2: Correlation between the dimensions of psychological empowerment and psychological empowerment**

	GI	PC	PCOM	PE
GI	1	.408**	.394**	.785**
PC		1	.399*	.794**
PCOM			1	.743**
PE				1

\*\* . Correlation is significant at the 0.01 level (2-tailed)

**Status of psychological empowerment with goal internalization, perceived control and perceived competence:**

Status of psychological empowerment with goal internalization, perceived control and perceived competence are discussed based on the organizations as well as industries. Mean is taken as the basis for discussion of the status and the mean value are shown in table 3 and table 4.

**Table 3: Status of factors of psychological empowerment based on organizations**

S. No.	Name of the organizations	Mean- Goal internalization	Mean- perceived control	Mean- Perceived Competence	Mean – Psychological empowerment
1	Ace College	3.82	3.98	4.52	4.11
2	Apex College	3.98	3.59	4.50	4.03
3	Bir Hospital	3.68	3.69	4.31	3.89
4	Buddha Air	4.40	3.85	4.42	4.22
5	Central Department of Management	3.65	3.39	4.28	3.77
6	Model Hospital	4.07	4.09	4.43	4.20
7	Nepal Airlines	4.24	3.52	4.53	4.09
8	Ncell	3.82	3.88	4.28	3.99
9	Nepal Medical College	3.91	3.94	4.49	4.11
10	Nepal Telecom	4.26	3.87	4.47	4.20
11	Shanker Dev Campus	4.22	4.12	4.52	4.28
12	Teaching Hospital	4.36	4.13	4.44	4.31
13	Total	4.07	3.84	4.44	4.11
14	Private organizations	4.05	3.89	4.45	4.13
15	Public organizations	4.08	3.78	4.43	4.10

Source: Survey

**Table 4: Status of factors of psychological empowerment based on industries**

S. No.	Name of the Industry	Mean- Goal internalization	Mean- perceived control	Mean- Perceived Competence	Mean – Psychological empowerment
1	Airlines	4.31	3.67	4.47	4.15
2	Education	3.91	3.74	4.45	4.04
3	Health	3.99	3.96	4.41	4.12
4	Telecommunication	4.14	3.89	4.44	4.16
5	Total	4.07	3.84	4.44	4.11

Source : Survey

Standard deviations of all the considered variables for all the organizations and industries are in between 0.30-0.98. This shows that the responses are not highly varied so the further discussions could be carried out based on these data.

### Findings and Discussions

Goal internalization, one of the component of psychological empowerment is strongly explained

(.72) by the item, inspired by organizational goals followed by the item organizational achievement (.63) but the other item enthusiastic towards organizational objectives is weak (.43) in explaining the variable. Employees are inspired by the goals to be achieved and the achievements but are not enthusiastic towards their achievements. This shows that goals are not totally internalized by the employees. Employees are not ready to give their best for the achievements of the

objectives that are set by the organization. The reason may be the unaddressed gap between individual goals and organizational goals or loopholes present in the process and procedures to be followed while achieving the objectives. Lack of participation of the employees in the process of setting goals may be the reason for this or lack of confidence in the employees for taking the responsibility may be the another reason for this situation. This research also has confirmed the items of goal internalization as that been confirmed by the research of Bhandari (2013), Ghimire and Gautam (2016), Ghimire and Gautam (2017), Menon (2001) providing the sufficient ground for the acceptance of first alternative hypothesis.

Perceived control, another component of psychological empowerment is more explained by the item, I can influence the decisions taken (.51) followed by the item, I can influence the way the work is done (.45) in comparison to the items I have the authority to make decisions (.38) and important responsibilities are part of my job (.29). Employees can influence the decisions taken in their department and can influence the way works are done in organizations to some extent but they do not perceive that important responsibilities are part of their job as well as they do not perceive that they have the authority to make decisions. In comparison to the items of other components, items of perceived control seems to be weak in explaining the variable. This shows the weak perception of employees regarding the control they have in their work and their work environment. Influence in the decisions taken in the department shows some extent of employees' control in the department and the work but they are not perceiving the importance of the jobs that are assigned to them as well as they perceive that they do not have authority to make decisions. Reason may be that the organizations are not being capable in making the employees for realizing the importance of their job or there is a big gap between the policy makers and the employees who are implementing the decisions. Employees may

be expecting high positions without being responsible toward their job. These may be the reason that employees are not enthusiastic towards organizational objectives which may lead to sub-optimization i.e. seeking power through some type of formal or informal alliances which may hamper the organizational effectiveness in the long run. This research also has confirmed two items of perceived control as that been confirmed by the research of Bhandari (2013), Ghimire and Gautam (2016), Ghimire and Gautam (2017), Menon (2001). But two different items are also confirmed by this research whereas one item that has been confirmed in previous research is not confirmed by this research i.e. influence decision in department providing the sufficient ground for the acceptance of second alternative hypothesis.

Perceived competence, third dimension of psychological empowerment is heavily explained by the item, I have the skills (.70) with factor loading of .83, followed by the item I have the capabilities (.66) with factor loading of .81 but the item I can efficiently do my work seems to be weak (.54) with factor loading of .73 in explaining the related dimension. Employees perceive that they have the capability to do their work but are not that much sure in doing their work efficiently. This shows the lack of sincerity and confidence in employees towards their work. Results also so that employees are not sure about the fit between their skills and capabilities with the work to be done and goals to be achieved. Result is the in-efficiency suffering by organizations. Confirmation of the items of perceived competence has provided the sufficient ground for the acceptance of third alternative hypothesis as that of Menon (2001) although one item confirmed by this research differ from that of Menon.

Table 2, shows that status of goal internalization seems to be quiet good in all organizations as all the values are greater than 3.5 supporting the results of Ghimire (2012), Bhandari (2013), Gautam and Ghimire (2017), Ghimire and Gautam (2016). Public organizations show nearly equal mean value in comparison to private organizations unlike results of the research done by Kaur

and Lomash (2015). By interpreting these values it can be said that employees of all the organizations taken into consideration internalize the organizational goals while doing their works. Meaning that dissemination and sharing of goals is good in private organizations as well as public organizations. Table 3 shows that status of goal internalization is high in Airlines in comparison to other sectors and the employees of education sector feels it as low. This may have happened due to structural complexity or the gap between the policy makers and the implementers in the sector of education.

In the case of perceived control (table 2), private organizations show greater mean value in comparison to public organizations contrasting the result of Kaur and Lomash (2015) as they have argued that self-determination which resembles autonomy or control is found to be high in public organization. Higher perceived control in private organizations may be due to the less gap between the employees and the policy makers as well as the structural hierarchy. Generally in public organizations the hierarchy is quiet complex as well as the structural complexity is high in public organizations. Spatial distance may be the reason for this which may also be responsible for creating red-tapism in public organizations. In comparison to that of Menon (2001) and Gautam and Ghimire (2017), one more item which is 'important responsibilities' are part of my job' is also confirmed but shows very less impact. From table 3 higher mean values of perceived control in health sector and telecommunication sector shows the presence of higher degree of control by employees in technical sector. Strict rules and regulations along with the sensitiveness of the job may be the reason for this.

In the case of perceived competence (table 2), mean values are greater than 3.5 showing the presence of perceived competence in the employees of service sector supporting the findings of Kaur and Lomash (2015) as they have argued that public and private sector employees do not differ in impact and competence. But this finding has contrasted the findings of Gautam and

Ghimire (2017) as they have argued that the competence in private organizations is high in comparison to that of public. Although being a very important and sensitive sector, it seems that health sector has to carry out different programs in order to develop their employees competently which will also help to attract and retain the talented one. This could be implemented in other sectors too.

### **Implications and way forward**

Organizations have to focus on increasing employees' participation in decision making so that employees engage sincerely towards the achievement of the organizational goals. Employees' participation may boost their confidence level to take responsibility by contributing more towards organizational interests. Weak perception of employees regarding the control they have in their work and work environment could be handled by organizing different programs such as trainings, refreshing programs, brainstorming along with development of discussion panels. This would help them to realize the importance of themselves within the organizations and their responsibility of fulfilling their duty so that sub-optimization may not occur in the workplace. Besides these, organizations have to make the right fit between employees' skills and capabilities with the work to be done and the goals to be achieved. Approach of right job for right person has to be honestly followed by the organizations. Regular appraisal without biasness may help to boost the sincerity and confidence level of employees.

Besides the practical implications, more researches are to be carried out in the future seeking various diverse relationship between the dimensions of psychological empowerment to add value in the field of psychological empowerment. As well the relationship of psychological empowerment with other variables could be explored out. Constructs developed by other researchers may be used as well other industries and sectors could be taken into consideration for adding value in the part of practical implication as well as literature.

## Conclusion

From this analysis it is concluded that employees of Nepalese service sector are psychologically empowered confirming the findings of Adhikari (2015) despite of their perception that they have less controlling power over their job and the working environment. Services have the unique characteristics of intangibility, heterogeneity, perishability and inseparability which demands the unique service each time the service is delivered to them. To fulfill this demand employees have to internalize the goals and for the achievement of the goals they should have autonomy to make the decisions at the spot by being confident with the feeling of self-efficacy (Gronoos, 1992; Looy et.al, 2003; Spreitzer 1995; Zeithmal et al., 2006). Confirming the notions provided by these researchers employees of Nepalese service sector have internalized the goals but do not show much enthusiasm for the achievement of the goal which can create problems for the organizations in the long run. To address this problem service organizations should comply the individual goals with organizational goals and increase the participation of employees at the time of taking decisions or developing policies. As suggested by Hack man and Oldham, 1975; Gist, 1987; Hon and Rensvold, 2006; Natrajan et al., 2017 task feedback to be related to competence and control, service organizations have to provide timely feedback to the employees to increase their level of perceived competence and control. To sum up, this study provide scopes for strengthening service organizations by adding value to literature and assessing the actual status of service organizations on the field of psychological empowerment for the managers, employees, future researchers, policy makers, investors, customers and other stakeholders to develop the appropriate strategies.

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# Role of Weather Shock and Variability on Food Security in India

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**Abstract :** *Food insecurity is one of the major causes of concern confronting the world. Despite the significant progress that India has made over the last 50 years, most of the populations or communities have to deal with uncertainties of food security on a daily basis year after year. Attaining food security is a matter of prime importance in India since more than a third of its population is estimated to be absolutely poor, and as many as one half of its children have suffered from malnourishment over the last three decades. The comprehensive studies on food security revealed that in India, studies have been made on food security, its determinants and challenges to food security. But till date, no study has been carried out for examining the extent of food insecurity across different socio-economic classes in rural India. The objective of this paper is to examine and quantify the extent of food insecurity in rural India and its variations across states and various social and religious groups. It further intends to identify the factors that affect household level food insecurity and impact of weather shock and variability on food insecurity in rural India.*

## I. Introduction

Food insecurity is one of the major causes of concern confronting the world today. It is inherently interlinked with other current global challenges of the economy. Food security is said to exist when all people at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs for an active and healthy life (FAO,2009). Despite the significant progress that India has made over the last 50 years, most of the populations or communities have had to deal with uncertainties of food security on a daily basis year after year, most often generation

after generation. With a population approaching almost 1.2 billion in 2010, India is likely to be the most populous country by 2030 with 1.6 billion people. It currently accounts for more than 17% of the global population and 456 million poor, or 41.6% living on less than \$1.25 a day. The need for achieving food security is felt significantly in recent years due to heavy pressure from the increasing population in India. India after 66<sup>th</sup> independence has not only seen development and progress but also becoming one of the fastest growing economies of the world. Attaining food security is a matter of prime importance in India where more than a third of its population is estimated to be absolutely poor, and as many as one half of its children have suffered from malnourishment over the last three decades (Upadhyay and Palanivel, 2011). Though after green revolution in 1960s, initiated a historic watershed that transformed the agriculture sector in India, a closer look at the experience in the last two decades however indicates a decline in both production and yield (Ittyerah, 2013). In the Global Hunger Index 2013, India ranked 63<sup>rd</sup> out of 120 countries though India is one of the largest producers of food in the world. Still India is not in the condition to meet the basic food requirements of people (Jaswal, 2014). There are many people in India who strive hard even for the square meals.

There have been various studies on India with respect to food security in general and its determinants and challenges in particular. Kattumuri (2016) analyzes the impact of Targeted Public Distribution System (TPDS) on food security in India and has found that

though TPDS and mid-day meal schemes have been implemented by the government of India, but the results of these schemes are not at all satisfactory. About twice and as many as children suffer from hunger and malnutrition till date. Dev and Sharma (2010) and Jaswal (2014) examine India's progress in the main three dimensions of food security- availability, accessibility and absorption (utilization) of food and have found that till now approximately 320 million Indians go to bed without food every night. Though India produces lots of food grains, but those food grains are not sufficient enough to meet the hunger and also not affordable for the poor. According to the authors, the main reasons behind this are inadequate and improper storage facilities for grains, insufficient cold storage and cold chain transportation system, poor roads and insufficient transport system, limited reach to Mandis, multiple layers of middlemen between the farmers and consumers and lack of well-developed banking sector. On the other hand, while studying the challenges to food security in India, Brahmanand et al (2016) have found that crop diversification, bio- fuel and medicinal plant cultivation, climate change, mismatch between water demand and availability etc are the major challenges to food security. owing to scarce resources and markets needed to obtain agricultural stability. Besides The main reason behind this existing food insecurity in India is lack of improvement in agricultural productivity this, inadequate distribution of food through public distribution mechanisms, unmonitored nutrition programmes and lack of inter sectoral coordination are also a reason for growing food insecurity in the country (Upadhyay&Palanivel, 2011). Studies have also been made to analyze the determinants of food security in India by Chakravarty and Dand (2005), Agarwal et al (2009) and Mukherjee (2016). In their studies, they have found that the major determinants of food security in India are religion, family size, household literacy level, income per capita, socio-economic status, consumption expenditure per adult, dependency ratio, total cultivated land holdings, sex of the household etc.

The comprehensive studies on food security revealed that in India, studies have been made on food security, its determinants and challenges to food security. But till date, no study has been carried out for examining the extent of food insecurity across different socio economic classes in rural India. This study has been taken up to fill this gap to some extent.

The objective of this paper is to examine and quantify the extent of food insecurity in rural India and its variations across states and various social and religious groups. It further intends to identify the factors that affect household level food insecurity and impact of weather shock and variability on food insecurity in rural India.

The paper is organized in six sections. Section two outlines the materials and methods. Section three discusses the extent of food insecurity in India and its variations across space and various social and religious groups. Section four outlines the model with a brief explanation of the variables of interest. Section five discusses the regression results whereas section six deals with concluding remarks.

## **II. Material and Methods**

This study is completely based on secondary data. The secondary data has been collected from the second round of India Human Development Survey (IHDS-II) for the year 2011-12. The IHDS provides data at the household level on a number of dimensions and variables. The data were thoroughly cleaned and a few variables relevant for the present paper were taken into account and a few others created from the available data. A detailed analysis of the variables used in the paper is provided in Section IV.

The main objective of the paper is concerned about household level food insecurity. Hence household level food insecurity is measured as follows. The report of the Expert Group (Rangarajan) to the Planning Commission (Government of India, 2014) has outlined the normative requirements of expenditures on food

comprising calories, proteins and fats. We have taken this recommended expenditure (per capita per month) on calories, proteins and fats as the benchmark for measuring food insecurity. Thus, the national food insecurity lines have been defined as the monthly per capita food expenditure (calorie+protein+fat) of Rs 554 in rural areas and Rs 656 in urban areas. These food insecurity lines are then adjusted by price indices to

estimate state specific food insecurity lines. On the basis of these food insecurity lines an aggregate measure of food insecurity is obtained. The national and state specific food insecurity lines along with poverty lines are shown in Table 1. A household whose per capita monthly expenditures on calories, proteins and fats are less than this benchmark are considered to be food insecure.

**Table 1: National and State Specific Lines for Poverty and Food Insecurity**

States/ Union Territory	Poverty Line		Food Insecurity Line	
	Rural	Urban	Rural	Urban
Andhra Pradesh	1031.74	1370.84	588.05	639.14
Arunachal Pradesh	1151.01	1482.94	656.03	691.41
Assam	1006.66	1420.12	573.75	662.12
Bihar	971.28	1229.3	553.59	573.15
Chhattisgarh	911.8	1229.72	519.69	573.34
Delhi	1492.46	1538.09	850.64	717.12
Goa	1200.6	1470.07	684.29	685.41
Gujarat	1102.83	1507.06	628.57	702.65
Haryana	1127.82	1528.31	642.81	712.56
Himachal Pradesh	1066.6	1411.59	607.92	658.14
Jammu & Kashmir	1044.48	1403.25	595.31	654.25
Jharkhand	904.02	1272.06	515.25	593.09
Karnataka	975.43	1373.28	555.95	640.28
Kerala	1054.03	1353.68	600.75	631.14
Madhya Pradesh	941.7	1340.28	536.73	624.89
Maharashtra	1078.34	1560.38	614.61	727.51
Manipur	1185.19	1561.77	675.51	728.16
Meghalaya	1110.67	1524.37	633.04	710.72
Mizoram	1231.03	1703.93	701.64	794.44
Nagaland	1229.83	1615.78	700.95	753.34
Orissa	876.42	1205.37	499.52	561.99
Punjab	1127.48	1479.27	642.62	689.70
Rajasthan	1035.97	1406.15	590.46	655.60
Sikkim	1126.25	1542.67	641.92	719.25
Tamil Nadu	1081.94	1380.36	616.66	643.58
Tripura	935.52	1376.55	533.21	641.80
Uttar Pradesh	889.82	1329.55	507.16	619.89
Uttarakhand	1014.95	1408.12	578.48	656.52

West Bengal	934.1	1372.68	532.40	640.00
Puducherry	1130.1	1382.31	644.11	644.49
Andaman & Nicobar Islands	1314.98	1797.69	749.48	838.16
Chandigarh	1303.17	1481.21	742.75	690.60
Dadra & Nagar Haveli	1008.39	1540.81	574.74	718.39
Daman & Diu	1200.6	1434.93	684.29	669.02
Lakshadweep	1327.77	1458.69	756.77	680.10
All India	972	1407	554	656

Sources: a) Poverty lines – Government of India (2014)

b) Food Insecurity Lines – Calculated by the author from IHDS-II

### III. Food Insecurity in India: Extent and Variations

The variations in food insecurity across different castes and religions are shown in Fig. 1 and Fig. 2 respectively. It is evident from these figures that there are wide variations in the prevalence of food insecurity across social and religious groups in rural India.

Fig. 1: Food Insecure Households (%) by Caste

Source: Calculated by authors from IHDS-II

Fig. 2: Food Insecure Households (%) by Religion

Source: Calculated by authors from IHDS-II

As far as the social groups are concerned, food insecurity is the highest for scheduled tribes with around 49% of its households are food insecure. In case of scheduled castes around 38% of the households are food insecure which is followed by other backward castes (30.68%). Food insecurity is the lowest in case of other caste people as percentage of insecure households belonging to this is only around 16%. Such differences in the extent of food insecurity reflect the economic inequalities among these classes.

Fig. 2 highlights the differences in the level of food insecurity across various religious groups in India. The point to be noted here is that for the convenience of our analysis we have grouped Buddhists, Jains, Tribals and other small religious groups into one group and named it as ‘Other Religion’ due to the fact each of its constituents represent a very small proportion of the

sample households compared to other major religions. It is seen from Fig. 2 that food insecurity is highest among the Hindu religion people (32.3%) followed by Christians (29.01%). Food insecurity is lowest among the Sikhs (13.1%). It is interesting to note that there is not much variations across the other two major religions.

The extent of food insecurity and its spatial variations are captured by Head Count Ratio (HCR) which has been shown in Table 1. As seen from the table 31.49% of the sample households covering the rural India are food insecure. No sample household in Goa and Tripura are found to be food insecure. The highest food insecurity is found to be in Chhattisgarh with 67.72% of its sample households being food insecure. This is followed by Meghalaya (63.21%). Other states with food insecurity higher than the national average are Uttar Pradesh (31.51%), Assam (33.02%), Maharashtra (38.64%), Tamil Nadu (41.92%), Uttarakhand (43.21%), Jharkhand (44.51%), Bihar (45.44%) and Odisha (54.25%)

**Table 1: Spatial Variations in Food Insecurity in rural India**

State/UTs	Head Count Ratio (HCR) (In percentages)	Food Insecurity Gap Index
All India	31.49	
Goa	0	0
Tripura	0	0
Jammu & Kashmir	4.5	0.009

Pondicherry	4.9	0.007
Nagaland	5.56	0.008
Sikkim	8.33	0.001
Daman & Diu	10.17	0.011
Punjab	13.17	0.021
Mizoram	16.67	0.020
Arunachal Pradesh	19.20	0.035
Gujrat	20.39	0.044
Andhra Pradesh	20.75	0.041
Karnataka	21.41	0.045
Kerala	21.85	0.050
Himachal Pradesh	22.09	0.049
Haryana	23.11	0.040
Rajasthan	24.26	0.059
Manipur	26.19	0.025
West Bengal	26.67	0.057
Uttar Pradesh	31.51	0.070
Assam	33.02	0.069
Dadra & Nagar Haveli	38.46	0.115
Maharashtra	38.64	0.096
Madhya Pradesh	39.20	0.112
Tamil Nadu	41.92	0.125
Uttarakhand	43.21	0.123
Jharkhand	44.51	0.124
Bihar	45.44	0.114
Orissa	54.25	0.144
Meghalaya	63.21	0.201
Chhattisgarh	67.72	0.226

In this study the depth of food insecurity has been captured by the Food Insecurity Gap Index (FIGI). From the above table it is found that the depth of food insecurity is also highest in Chhattisgarh (0.226) followed by Meghalaya (0.201). In the states like Odisha (0.144), Tamilnadu (0.125), Jharkhand (0.124), Bihar (0.114) and Madhya Pradesh (0.112), food insecurity is deeper as compared to other states.

The district level analysis of spatial variations and depth of food insecurity is given in the appendix section.

#### IV. The Model:

To examine the determinants of food insecurity, a binary logistic regression model is used. The model is ---

Where,  $w'$  is a vector of weather-related variables (e.g. flood, drought, mean daily average temperature etc.),  $x'$  is a vector of other explanatory variables representing different socio-economic variables. and are vector of coefficients of the weather variables ( $w$ ) and other explanatory variables ( $x$ ) respectively. Finally represents the intercept,  $u$  refers to the disturbance term and  $i(i=1,2,3,\dots,n)$  refers to the households.

Here, the dependent variable  $FI_i$  indicates food insecurity status of the  $i^{th}$  household which takes on value 1 if a household is food insecure and 0 otherwise.

The definitions of the explanatory variables are explained below:

Dummy variable is used to capture the differential impact of the variable Hill on food insecurity. Dummy takes the value '1' if the household resides in hilly region, '0' otherwise.

Household size can be defined as number of persons living in one house. Larger sized households have more mouths to feed and hence have lesser availability of food consumption per capita. An increase in household size increases the probability of food insecurity.

The per capita income of each household is obtained by dividing its total annual income by the number of household member. Higher the per capita income, higher will be the capacity of the household to consume food items. Thus, per capita income is expected to have a negative impact on food insecurity.

Poverty is an important determinant of food insecurity. To capture the impact of poverty on food insecurity, dummy variable is used which takes the value '1' if household is poor, '0' otherwise. It is expected that the poor do not have enough resources to purchase the required amount of food items for their household which raises their probability of being food insecure.

To capture the differential impact of different castes on household level food insecurity, dummy variables are used. The dummy variable takes the value of '1' if a household belong OBC category, '0' otherwise. Similarly, it takes the value '1' if the household belong to SC category, '0' otherwise, takes the value '1' if the household belong to ST category, '0' otherwise and takes the value '1' if the household belong to Other Caste, '0' otherwise. Here General caste is taken as reference category. Generally, it is expected that households belong to General caste are economically stronger and hence they are food secure in comparison to other caste.

Dummy variable is also used to capture the differential impact of religion on food insecurity. Dummy takes the value '1' if the household belongs to Hindu religion, '0' otherwise.

Dependency ratio is defined as the number of young and old dependents as a percentage of working age group members of a household. If dependency ratio is high, there will be more pressure on a household to feed relatively more people by a smaller number of earners in a household. This will reduce the economic capacity of a household to buy enough food for its members. Thus, dependency ratio is expected to increase food insecurity.

Cultivation as the main occupation is also an important determinant of food insecurity. To capture this variable a dummy variable is used, which takes the value '1' if a household's main occupation is cultivation, '0' otherwise. This implies that the household whose main occupation is cultivation are less likely to be food insecure than others. This is quite intuitive. The cultivator households in India are primarily subsistence farmers, and hence allocate a considerable amount of farm produce on household consumption.

To capture the impact of Remittances on food insecurity, dummy variable is used which takes the value '1' if the households get remittances, '0' otherwise. It is expected

that remittances into a household reduce its likelihood to be food insecure. This is because receipt of remittances enhances liquidity and hence the household can spend more on food.

## V. Regression Results

The results of the binary logistic regression of food insecurity are shown in Table 2. It is to be noted that the odds ratio is reported here rather than the coefficient, and the results are interpreted accordingly.

Table 2: Results of the Binary Logistic Regression		
Variables	Odds Ratio	Std. Error
<i>Drought_2011</i>	1.291***	0.057
<i>Flood_2011</i>	0.951	0.040
<i>MeanT</i>	1.128***	0.011
<i>Hill</i>	1.091***	0.041
<i>HS</i>	1.196***	.009
<i>INCOMEPC</i>	0.990***	1.35e-06
<i>Poor</i>	12.31***	0.530
<i>Other Backward Classes</i>	1.322***	0.063
<i>Scheduled Castes</i>	1.590***	0.086
<i>Schedule Tribes</i>	2.010***	0.120
<i>MUSLIM</i>	0.722***	0.048
<i>SIKH</i>	0.633***	0.086
<i>BUDDHIST</i>	1.508**	0.299
<i>DR</i>	1.158***	0.025
<i>Main Cultivation</i>	0.776***	0.028
<i>Remit</i>	0.910**	0.045
Const	0.008***	0.002
Pseudo R squared	28.83%	
LR chi2(15)	9073.25	
Prob> chi2	0.0000***	
Observations	25113	
Note: ***, ** and * represent significant at 1%, 5% and 10% respectively		

The variable *Drought* is found to have positive impact on food insecurity. This means that the probability of food insecurity increases with the increase in drought.

Similarly *Mean Temperature* also effects food insecurity positively. This implies that when mean temperature

rises, the likelihood of food insecurity also rises.

The variable *Hill* is found positive and significant. This implies that the people residing in hilly regions are more food insecure as compared to the plains.

*Household Size* is found to have a positive impact on food insecurity. This implies that the probability of food insecurity increases with increase in the size of households. Larger sized households have more mouths to feed and hence have lesser availability of food consumption per capita.

*Per capita income* is found to have a negative impact on the probability of household level food insecurity. An increase in per capita income of the households reduces its probability of food insecurity.

The odds ratio of *Poor* is found to be as high as 12.31. This implies that the probability of food insecurity for the poor households is higher than others. Food insecurity of a poor household is 12.32 times of a non-poor household. This is quite intuitive. The poor do not have enough resources to purchase the required amount of food items for their household which raises their probability of being food insecure.

As far as the differential impact of caste on food insecurity is concerned it is found that compared to general caste, food insecurity is more among *Other Backward Classes* (OBC), *Scheduled Caste* (SC) and *Schedule Tribe* (ST). The odds of being food insecure for a household belonging to OBC, SC and ST are 1.32, 1.59 and 2.01 times, respectively, of a general category household. This is quite expected because usually the general category people are economically better-off than other social classes.

The dummies used to capture differential impacts of religions are also found to have significant coefficients. The odds ratios of the *Muslim* and *Sikh* have turned out to be less than one, and the reverse is found to be true in case of *Buddhist*. This implies that households belonging to the former are less likely to be food insecure

compared to *Hindu*. On the other hand, the *Buddhist* have a higher probability of being food insecure than the Hindus.

*Dependency Ratio*, showing the number of young and adult dependents as a percentage of number of economically active members in the households, is found to increase the probability of food insecurity.

The odds ratio of *Cultivation* is found to be 0.77. This implies that the households whose main occupation is cultivation are less likely to be food insecure than others. This is quite intuitive. The cultivator households in India are primarily subsistence farmers, and hence allocate a considerable amount of farm produce on household consumption.

The odds ratio for *Remittances* has turned out to be 0.91. This implies that remittances into a household reduce its likelihood to be food insecure. More precisely, the households receiving remittances are 9% less likely to be food insecure than others. This is because receipt of remittances enhances liquidity and hence the household can spend more on food.

Finally, the Pseudo R squared is found to be reasonably high at 28.83%.

## VI. Conclusion

This paper makes a novel attempt to examine food insecurity in rural India and its variations across space and different social and religious groups. Around 31.49% of the sample household in the country are found to be food insecure with large scale variations across the states and union territories. The percentage of food insecure sample households in the country is found to be varying between 0% in Goa and Tripura, and 68% in Chhattisgarh. There is prevalence of large-scale inequality in food insecurity among various social and religious groups. Around 49% of the households belonging to scheduled tribes are food insecure and the corresponding figure for general category households is 23%. Likewise, around 13% of the Sikh households



are food insecure and the same for religions Hindu is 32.3%.

This paper further identifies the determinants of household level food insecurity. The variables like drought, mean temperature, hill, size of households and dependency ratio increase the probability of food insecurity. Likewise, poverty makes a household more likely to be food insecure. On the other hand, per capita income, remittances and cultivation as the main occupation reduce the probability of food insecurity.

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# VUCA and Well-being - The Challenges and Prospects in the New Pandemic Era

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## Abstract

**Purpose:** There has been clear reported evidence of negative impact of COVID-19 and related lockdown measures on subjective well-being of people in early severely impacted countries like China, Italy, Singapore, United States, Columbia, etc. But there has been no comprehensive study in India which has examined this impact. This paper aims to bridge this gap by studying this impact in light of evidence provided in Indian context. However, due to dearth of literature, systematic review was not possible. Therefore, we conducted a narrative review to find out answers to prevailing research questions. Also, we will try to conceptually build the relationship between the two constructs and provide a framework thereafter.

**Design/Methodology/Approach:** This conceptual paper is based on review and analysis of literatures from past studies. The method used in the study was by searching the research papers on various search engines. The search terms "subjective well-being, COVID-19, happiness, mental health and psychological impact were used. The relevant papers were retrieved and the ones which fulfill the research objectives were included in the analysis.

**Findings:** Based on the literature reviews, it was ascertained that COVID-19 has resulted in massive number of changes in the way businesses are run. Employees are now experiencing a new set of challenges in their virtual workplaces which

**Research limitations/Implications:** This paper entirely relies on previous findings extracted from Google Scholar, Science direct, Asian Journal of Psychiatry and online surveys and research articles.

**Practical Implications:** This paper will provide insights into the impact of COVID-19 on subjective well-being and thereby suggests some remedial measures for the same. Also, after identifying challenges of virtual working of organisations, a framework is provided which could be used by managers and policy-makers to rectify the same.

**Originality/Value:** This study is first of its kind in which COVID-19 has been seen in the light of VUCA world. Moreover, the relationship between COVID-19 and subjective well-being is analysed in the context of employees for the first time.

**Keywords:** VUCA, COVID-19, Subjective Well-being, Employees, Mental Health

## Introduction

Today's world can be appropriately described as a VUCA world, which means Volatile, Uncertain, Complex and Ambiguous. Covid-19 has presented a new set of challenges and uncertainties, a vulnerable world which was never like this before. In the present scenario, the coronavirus pandemic has amplified our VUCA world.

Stress is something which is an inevitable consequence of VUCA world, that exists inside and outside

the organizations. According to the World Health Organization, it has been estimated that by as early as 2030, the leading causes of absenteeism will be anxiety and depression which will place more strain on businesses than cancer, cardio-vascular disease and diabetes combined.

One of the biggest challenges faced by business leaders nowadays is moving their organizations successfully in an increasingly volatile, uncertain, complex and ambiguous (VUCA) world. It was first used by military in U.S.A., but now it is most appropriately used by businesses globally.

As with other institutions, COVID-19 has dramatically impacted the way businesses are run. There has been national lockdowns, closing down of all types of institutions, restrictions on border movements and economies being shaken.

Many people are now forced to work from their homes and are completely detached from their offices. Some are doing short-time work and some are already on the verge of unemployment. The outbreak of COVID-19 has forced government to adopt drastic measures which are impacting all spheres of life including personal, social and business world.

When United States Army War College planners first used the acronym “VUCA” to describe the events which are volatile, uncertain, complex and ambiguous, they would have never thought that it will fit in the pandemic driven-era so appropriately.

### **Conceptual Background of VUCA**

The US military first introduced the acronym VUCA (Volatile, Uncertain, Complex, Ambiguous) in 1987 in order to explain the post-Cold War global security environment. Since then, it has been applied increasingly to almost all sectors of businesses.

VUCA brings together four discrete challenges that are as follows:

- I. A volatile environment is essentially unpredictable or unstable. While change is very certain to happen, the direction, spread and atrocities of change is unknown. An environment in which the nature, causes and extent of changes are not known is described as a volatile environment. And when any sort of change occurs, it negatively impacts the employees and leaders of the organization who want to maintain the status quo. Thus, it becomes a source of real distress, anxiety and stress among the workforce. This, in turn, affects the productivity of the organization negatively. Thus, in order to overcome these challenges, it is very crucial for organizations to be agile and turn the hurdles into opportunities.
- II. Uncertainty means there is lack of information due to which no appropriate predictions and calculation can be made. There are various market forces which are not under the control of organizations. Conditions in the organization becomes unstable, unforeseen events disrupt the normal functioning of the organizations and unplanned events create havoc among the workforce. As a result of this, organizations fail to make fruitful decisions, as and when required.
- III. Complexity, either within the organization or in the external business environment, has many themes and layers. Complex situations demand time, clarity and deep understanding to unravel.
- IV. Ambiguity refers to a state when there are unclear, indefinite or inexact situations and there is no single clear path to overcome them. It is extremely difficult to find one best course of action or solution to ambiguous situations.

As the prominent scholars Dean & Webb puts it “Many business leaders and their teams are confounded, stressed and overwhelmed by VUCA, with the rapid pace of change compounded by challenges of information-overloaded, always-on, multi-tasking environments

that negatively affect the whole organization's productivity". Thus VUCA not only exists in the external business environment but also impact the inner mental states of employees causing confusion, stress and burnouts which further deteriorate their personal and professional growth. This highly dynamic, rapidly changing, sometimes confusing world pose challenges to the way we work.

The IBM study Capitalizing on Complexity (2010) presented insights from over 1500 chief executive officers where "the biggest challenges facing enterprises from here on will be the accelerating complexity and the velocity of a world that is operating as a massively interconnected system". "Eight out of ten of these CEOs expected even greater complexity in the coming years, while less than 50 percent believed they knew how to successfully deal with it."

In everyday corporate settings, VUCA has its impact on organizational and technical practices which are taking dramatic changes by each passing day, thus, removing old practices and value-systems. Also, it's impossible to deal with the complexity of working virtually at hand. Employees have to be prepared for taking quick and risky decisions, think out-of-the-box and adapt to changing situations, which ultimately increases psychological stress and anxiety.

### **COVID-19**

Coronavirus disease (Covid-19) is a deadly infectious disease which has infected 33,620,812 people and caused 1,007,716 deaths worldwide. In India, the statistic for the same is 6,156,722 and 96,468 respectively. It has been declared a pandemic by WHO due to the severity of the disease and the alarming rates of its spread worldwide.

Covid-19 is not just a major health problem, it is a pandemic which has affected every sphere of life. Businesses are also not left behind and corona has already caused major losses of jobs and income. International Labor Organization (ILO) has already

estimated loss of 195 million jobs due to this pandemic. Even when the short-term effects of this will end, its long-term effects will cause damages over many years.

The present pandemic situation has devastating impact on businesses. The GDP rate has fallen down to the lowest level

### **Corona virus induced VUCA environment**

Corona virus accurately synchronize with all of the four characteristics of VUCA-

- 1) Volatility: The changes taking place due to corona virus, be it in daily lifestyles, way of working and structuring of institutions, are taking place very dramatically. Neither they can be known, nor they can be predicted.
- 2) Uncertainty: There is no information about the arrival of the cure and vaccination of this pandemic.
- 3) Complexity: The pandemic is impacting all aspects of life, including health care, business, educational institutions, economy and social life, in complex ways.
- 4) Ambiguity: There is no "best practice" that organizations can follow to manage the challenges caused by the pandemic.

### **Literature Review and Analysis**

#### **Pandemic driven VUCA factors impacting Businesses...**

The acronym VUCA is best to use in the present context. In the current dynamic business environment, COVID-19 has done nothing but accelerated the VUCA environment and added fuel to this changing world. Organizations both at the national and international level have been experiencing high levels of uncertainty and ambiguity due to the ongoing pandemic. Organizations were facing volatility, uncertainty, ambiguity and complexity in earlier times as well, but the levels posed in this pandemic cannot be matched to anything same in

the previous history.

India, being one of the fastest developing nation, sustain in the VUCA world as it keeps on undergoing various changes to keep it developing as an economy. But, a severe pandemic like COVID-19 has caused immense changes in the business environment. Both the demand and supply side of the market is being impacted by this virus. A recent media report estimated that the Covid-19 outbreak in India is likely to decrease the hiring of global IT firms in India by 30%. In addition to this, the growing panic in the society along with lockdown being implemented has also resulted in the wage loss for blue-collar laborers in the country.

With the rapid transformation of available technologies, many organizations are now capable of working across time, space and boundaries. In addition to its ease in usage and cost savings, the current pandemic has moved millions of workers from their workplaces into their homes due to social distancing purposes. The corona virus pandemic has resulted in compulsory teleworking not only for employees but for every sector including housing, recreation and educational institutions.

The virtual way of working has advantages in the form of cost savings and flexible environment. But in addition to this, there are numerous disadvantages which needs proper attention. This conceptual study is aimed to identify these consequences and its impact on subjective well-being of employees. These are listed as follows-

- Lack of effective communication - Research conducted by Daim et al. and Barhite suggests that working in virtual environment cause difficulty in maintaining proper nonverbal communication which further led to anxiety, confusion, and miscommunication among employees.
- Building Trust - In virtual teams, it is quite evident that there are lower trust levels as compared to actual live working arrangements. Moreover, there is confusion and uncertainty in the quality

and amount of knowledge shared virtually which further affect the authenticity and credibility of the work done. Research conducted by Benetyte, D. and Jatuliaviciene, G. justifies these premises.

- Lack of strong leadership - Researchers agree to the point that while working virtually, it is difficult to organize work and lead employees effectively than leading traditional teams. Also, when organizational boundaries are removed, the powers and privileges of leaders become blurred which enables employees to work cohesively and take the lead. But this is a difficult task to achieve.
- Security and compliance issues - It is difficult for companies to manage and track important data in virtual space because of lack of transparency and flexibility.
- Motivation issues and disengagement - Working continuously for 8-9 hours each day results in boredom and monotony. Also lack of physical interaction and socialization increases mental strain, confusion and uncertainty. This further causes a sense of detachment from the organization which leads to lower job satisfaction and organizational productivity.
- Work-life Balance - It refers to the equilibrium made in work life and personal life and the level to which personal and professional activities are properly managed. The increase in mobile technology, cloud-based software and the proliferation of internet has made it much easier for employees to bring their work in homes, thus, blurring the boundaries between personal and professional life. This has further resulted in serious implications for the effective work-life balance.

### **Role of Technostress**

The term technostress was first introduced by Brod (1984), who defined it “a modern disease of adaptation caused by an inability to cope with new computer

technologies in a healthy manner.” Rosen and Weil (1997) expanded this definition to “any negative impact on attitudes, thoughts, behaviors, or body psychology caused directly or indirectly by technology.” Subsequently, in one of the most frequently cited articles on the topic, Tarafdar Tu and Ragu-Nathan (2007) defined technostress as “stress created by ICT use,” explaining that it is “one of the fallouts of an individual’s attempts and struggles to deal with constantly evolving ICTs and the changing cognitive and social requirements related to their use.”

“Studies have explored the consequences of technostress, describing common psychological responses to stressors, including fatigue, exhaustion and job conflict, as well as decreased levels of job satisfaction and lowered commitment to the organization, performance and productivity.” (Ayyagari et al., 2011; Jena, 2015; Ragu-Nathan et al., 2008; Salanova et al., 2013; Tarafdar et al., 2010; Tarafdar et al., 2007, 2011; Tu et al., 2005). “A number of studies have also found that technostress was negatively associated with users’ happiness” (Brooks, 2015; Salanova et al., 2013). According to Raisiene and Jonusauskas, “intensive work with ICT significantly increases the technostress experienced by employees, the consequences of which are related to the deterioration of the subjective quality of life.” Thus, previous researches have pointed out a negative association between technostress and subjective well-being of employed persons as well as users’ life satisfaction. The adaptation and usage of new technology places an immediate psychological price on its users. Thus, it is very essential for managers to adopt intervention strategies to combat these issues in order to improve employees’ well-being as well as organizational performance.

### **Well-being in the era of pandemic....**

Any widespread outbreak creates havoc and stress among people. The 2019-COVID-19 pandemic was an international health emergency which shock the

entire world. It is by far the largest outbreak of atypical pneumonia and was declared a pandemic by World Health Organization due to its immense severity and transmissibility. Since the outbreak, every nation has tried to curtail this spread and adopted various measures to fight the pandemic including social distancing and lockdown measures. But nothing has been of great help and the people infected are increasing day by day.

The drastic spread and health deterioration associated with this disease is causing high levels of fear and anxiety among people. These risks have posed an immediate need to study and address the impact of the pandemic on the subjective well being of people. There has been no pertinent information on the cointegration and causality of these two phenomena.

Since the outbreak of the corona virus, the fear and anxiety related to it has been increasing more rapidly than the virus. In the absence of a vaccine for the virus, many governments have executed social distancing measures targeted in order to curtail the spread of the virus. These interventions, which include national lockdowns, shutdown of workplaces and schools, and limiting of day-to-day movements and social meetings, have deteriorated day-to-day lives and activities.

It is difficult to maintain proper health and well-being when we are in the middle of crisis situation like this. The uncertainties and stresses related to our jobs, financial wealth, families and social life affect our lifestyles and mental health. The pandemic has devastated the life of nearly everyone, and IT employees are no exception in this. Tech industry employees had the most broadly negative changes of any industry, with double-digit increases in job stress (11%), disordered sleep (14%), burnout (23%), and an almost 40% drop in motivation. (“The impact of COVID-19 has devastated workers’ mental wellbeing; which types of jobs are most affected and what can employers do?” 2020).

There have been serious economic consequences, with the collapse of economic activity pushing many

economies on the verge of downturn. “There has been a considerable decline in spending and labor market outcomes measured by employment and wages.” (Andersen et al., 2020; Baker et al., 2020; Béland et al., 2020; Carvalho et al., 2020; Chen et al., 2020; Coibion et al., 2020; Forsythe et al., 2020; Kim et al., 2020; Surico et al., 2020). The pandemic has resulted in an unparalleled diminution of the Indian economy and the shutdown of businesses across the country.

“In addition to economic costs, these measures can have significant, negative impacts on well-being and mental health by increasing anxiety, depression, stress, and other negative emotions.” (Brooks et al., 2020; Holmes et al., 2020). Therefore, there are growing calls to contemplate the influence of COVID-19 on people’s subjective well-being.

As COVID-19 has led to trauma, isolation and economic loss, there has been numerous researches which had studied the impact of these on Subjective Well-being. For example, Galea et al. (2002), Neria et al. (2007), and Clark et al. (2020) document that “the September 11 World Trade Center terrorist attacks, Hurricane Ike, and the 2013 Boston marathon bombing, respectively, increased the incidence of depression, post-traumatic stress disorders, and a broad range of mental and behavioral disorders, and reduced subjective well-being.”(Galea et al. (2002), Neria et al. (2007), and Clark et al. (2020)). “The severe acute respiratory syndrome in 2003 resulted in poorer mental health among individuals subjected to quarantine, with effects persisting up to three years onward.”(Hawryluck et al. (2004) and Liu et al. (2012)). However, these researches are limited to studying only the partial impact of traumatic events on well-being, which are not generalizable in the context of the current pandemic.

Another strand of literature has examined the influence of recessions and economic depreciation on wellbeing. “Extensive research has shown that economic downturns are harmful for health (Ruhm, 2015; Janke et al., 2020), mental health (Engelberg & Parsons, 2013; Avdic et

al., 2020), and life satisfaction” (Di Tella et al., 2003; Luechinger et al., 2010). However, these economic shocks cannot be associated with social isolation and global health crisis. And, thus, it is likely that the effect of recessions would vary from that of COVID-19 on well-being.

Some of the threats people face during the COVID-19 pandemic are:

Alterations in the daily routines (e.g., People have to separate from family, friends, religious institutions, etc)

Interruptions in progression of learning (e.g., virtual learning environments, technology access and connectivity issues)

Interruptions in progression of health care (e.g. limited access to mental, speech, and occupational health services)

Loss of significant life events (e.g., pain of missing celebrations, vacation plans, and/or important life events)

Loss of security and safety (e.g., housing and food insecurity, increased exposure to violence and online harms, threat of physical illness and uncertainty for the future)

“Numerous sources of stress exist in addition to fears of contracting the virus” (Holmes et al., 2020). “The experience of confinement and physical distancing is new to everyone and thus adaptation to a “new normal “has led to confusion and uncertainty” (Galea et al., 2020). Covid-19 has posed numerous threats to the subjective well-being of individuals including restrictions to outdoor social activities, self-isolation resulting from social distancing, forced changes in routine and lifestyle, etc. Many have experienced pain due to loss of life, loss of employment and career opportunities, and discontinuations in major life activities. “Emerging empirical studies show problematic psychological health as a result of the pandemic” (Lei et al., 2020; Resnick, 2020; Wang et al., 2020).

“Individuals with pre-existing mental health problems are among those most vulnerable to potential deleterious psychosocial and medical consequences of the pandemic” (Holmes et al., 2020; Pfefferbaum and North, 2020). “Under normal circumstances, those with pre-existing mental health problems have an elevated mortality rate (Felker et al.,1996; Walker et al., 2015), more medical comorbidities (Krein et al.,2006), poorer physical health (Phelan et al., 2001), and lower overall functioning or quality of life” (Evans et al., 2007). “As well, those with pre-existing mental health problems have been shown to be more susceptible to stress” (Bos et al., 2018). “The psychological impact of the pandemic is likely far reaching but remains poorly understood. Emerging evidence suggests that the rates of anxiety and depression rose rapidly in the beginning of the pandemic across many populations.” (Iasevoli et al., 2020; Jungmann and Witthöft,2020; Qiu et al., 2020).

There are many studies being conducted on the psychological impact of the Covid-19 pandemic. “A review of its impact on mental health (Nobles et al. 2020) concluded 6 published cross-sectional studies, which were conducted on the Chinese general

population” (Cao et al. 2020; Li et al. 2020b, c; Liu et al. 2020; Wang et al. 2020a; Zhang and Ma 2020). “The findings were similar to those of previous pandemics with symptoms of anxiety, depression, and post-traumatic stress disorder (PTSD) being the most often reported in the general population.” (Brooks et al. 2020; Chew et al. 2020)

“The period of lockdowns raised many concerns about the occurrence of negative mental effects from it, including loneliness, depression, and suicide” (Brooks et al. 2020, Courtet et al. 2020). Few empirical studies have already stated these results,. Banks and Xu (2020), for example, find that mental health in the United Kingdom (UK), measured using the Good Health Questionnaire (GHQ-12), worsened by about 10% during the pandemic. Sibley et al. (2020) find similar effects for New Zealand. Zhang et al. (2020) found modest declines in SWB and worsening psychological distress in a Chinese sample. Gao et. al. (2020) and Cao et al. (2020) found similarly mild effects in China using different measures.

The summary of the literature reviews being taken for study are as follows:

**Table 1. Researches on COVID-19 and Subjective well-being**

Year/ Author	Title of Paper	Major Findings
2020, C.H. Liu, C. Stevens, R.C. Conrad, H.C. Hahm	“Evidence for elevated psychiatric distress, poor sleep, and quality of life concerns during the COVID-19 pandemic among U.S. young adults with suspected and reported psychiatric diagnoses”	Depression, anxiety, and PTSD symptoms, as well as COVID-19-related concerns, sleep problems, and quality of life were collated across various groups of mentally affected people. There was clear reported corroboration of vulnerability among individuals with a mental health history or uncertain mental health concerns during the starting weeks of the COVID-19 pandemic.
2020, Varshney M, Parel JT, Raizada N, Sarin SK	“Initial psychological impact of COVID-19 and its correlates in Indian Community: An online (FEEL-COVID) survey”	The people of younger age, female gender and physical illness were having severe psychological impacts.



2020, Cuiyan Wang, Riyu Pan, Xiaoyang Wan, Yilin Tan, Linkang Xu, Cyrus S. Ho and Roger C. Ho	“Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China”	In total, 53.8% of participants assessed the psychological impact of the outbreak as moderate or severe; 16.5% assessed moderate to severe depressive symptoms; 28.8% assessed moderate to severe anxiety symptoms; and 8.1% assessed moderate to severe stress levels.
2020, Ravi Philip Rajkumar	“COVID-19 and mental health: A review of the existing literature”	Subsyndromal mental health diseases are a common result of the COVID-19 pandemic.
2020, Terence C. Cheng Seonghoon Kim Kanghyock Koh	“The Impact of COVID-19 on Subjective Well-Being: Evidence from Singapore”	There were large declines in overall life satisfaction and domain specific satisfaction during the COVID-19 outbreak

**Table 2. Researches on Technostress**

Year/Author	Title of Paper	Major Findings
2017, Galit Nimrod	“Technostress: measuring a new threat to wellbeing in later life”	It sets forth a notable relationship between technostress and SWB among older ICT users, irrespective of their sociodemographic characteristics.
2011, Ramakrishna Ayyagari, Varun Grover and Russell Purvis	“Technostress: Technological Antecedents and Implications”	This study concludes that certain technology characteristics - like usability (usefulness, complexity, and reliability), intrusiveness (presenteeism, anonymity), and dynamism (pace of change) - are related to stressors (work overload, role ambiguity, invasion of privacy, work-home conflict).
2012, Marisa Salanova, Susana Llorens, and Mercedes Ventura	“Technostress: The Dark Side of Technologies”	This paper tries to explore the dark side of technologies focusing mainly on its serious implications.
2011, Jakkula V. Rao, K. Chandraiah	“Occupational stress, mental health and coping among information technology professionals”	According to this study finds out that the shop floor workers had more job stress and lower mental health, then the executives.
2020, Dragano, Nico; Lunau, Thorste	“Technostress at work and mental health: concepts and research results”	This study report that the use of digital technologies is associated with specific psychosocial demands (e.g. higher workload, complexity, conflicts between work and other life domains) and resulting psychobiological stress reactions

### Research Findings and Framework

There have been numerous studies conducted assessing the impact of COVID-19 on mental health and subjective well-being of people in many countries including Singapore, U.S.A., Thailand, etc. But there has been no research conducted in India which has

studied this relationship comprehensively. In this study, we tried to bridge this gap by studying this relationship and ascertaining the actual impact in the context of employees. Also, COVID-19 has been seen in the light of VUCA and the same framework has been used to explain the current pandemic. COVID-19 has resulted in massive number of changes in the way companies are

operating. Employees are now receiving directives to work from home. This has caused severe implications on the work-life balance and overall well-being of employees.

Based on the research papers being analyzed, it can be ascertained that the COVID-19 pandemic has done nothing but amplified our VUCA world. The world was already in a midst of changing technologies, way of living, introduction of complex systems and increasing uncertainties. But the corona pandemic has accelerated complexities and shaken the world. Business world is also ultimately badly impacted and organizations are finding it hard to strive in the current scenario. Due to the pandemic, companies are being forced to organize their work virtually and shut down their offices. But the cost of working virtually in addition to the stress and fear related to the pandemic adds in deteriorating subjective well-being of employees.

There were five challenges of virtual organization identified on the basis of previous researches - Lack of effective communication, building trust, lack of strong leadership, security and compliance issues and motivation issues and disengagement. Therefore, it was found out that working effectively and maintaining well-being in a pandemic era is a very big challenge for the employees. While the blurring of organizational boundaries creates confusions and uncertainties related to information sharing, the workload created due to monotony causes stress and anxiety among employees and disturbs their work-life balance. In a nutshell, COVID-19 has created serious implications for employees and disturbed their overall well-being.

After analyzing literature reviews, one variable was identified which was acting as a catalyst for changes in the personal and working life of employees. It is technostress which is defined as the incapacity to cope with current computer technologies in a healthy manner. Weil and Rosen modified the definition of TS considering it as “any negative impact on attitudes, thoughts, behaviors, or body physiology that is caused

either directly or indirectly by technology” (Weil and Rosen 1997). “Champion described TS as “The Price of Using Technology”, addressed TS as a serious illness, which includes several symptoms such as: panic, anxiety, resistance, technophobia, mental fatigue, physical ailments, intolerance and perfectionism” (Champion 1988). “Other physical symptoms associated with TS have been described elsewhere, and include muscle cramps, headaches, joint aches, and lack of sleep/insomnia” (Çoklar and Sahin 2011).

Studies have explored the impact of technostress on psychological health of employees resulting in burnout, fatigue, exhaustion and job conflict, as well as decreased levels of job satisfaction, performance, organizational commitment and productivity. Numerous studies have suggested that technostress has a negative impact on users’ happiness and life satisfaction. In these days there is no way of escape from technology and companies have to adapt to the latest ones in order to compete. Today the world is of cloud computing, artificial intelligence and robotics. People are being replaced by machines and employees are in continuous pressure to upgrade their skills in order to survive in these dynamic technological complexities. All these aspects give a clear path to rise in technostress which is very prominent in every type of businesses especially those which are heavily relied on information and communication technologies (ICTs). Thus, it is proposed that technostress will play a key role in negatively affecting the subjective well being of employees.

Therefore, on the basis of literature reviews studied, the following research propositions can be drawn-

- COVID-19 induced VUCA environment has a significant association with subjective well-being of employees.
- COVID-19 induced VUCA environment has a significant association with overall well being of employees.
- COVID-19 induced VUCA environment has a

significant association with well being at work of employees.

- Technostress will mediate the relationship between COVID-19 induced VUCA environment and subjective well-being of employees.

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# Financial Planning by Working Women in India: Needs and Challenges

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**Abstract :** *The present paper explores one of the most important aspects related to new dimensions where women are competing neck to neck with her male companions. Increase in women's literacy rates, their exposure to better educational and job opportunities, and changing government policies towards women empowerment have enabled them to realize the importance of financial independence. Women's contributions in the social and political sectors are expanding. Due to number of variables such as delayed marriageable age, rising divorce rates, women bearing greater financial responsibility for financially supporting children, and the growing requirement for two-income homes, the burden of financial stress is increasingly falling on women. Thus, women need to plan their finances at every stage of her life so that she is equipped to handle any contingency of their life alone. Therefore, women needs to be financially literate and actively participate in all the financial planning so that, at the time of difficulty, she can manage the finances confidently. The purpose of the present paper is to identify various needs and factors affecting financial planning of women.*

**Key Word:** *Women Empowerment, financial literacy, financial planning.*

## 1. INTRODUCTION

According to Moxiefuture.com (2018) when it comes to investing, women today want more than just good financial returns. They also want their money to be invested in a way that matches their values and ideals. Not only are women growing more economically powerful and controlling a larger share of the world's wealth, but they are also becoming more concerned about the social and environmental consequences of their investments.

Moxie Future feels that the financial industry does not sufficiently understand or cater to women. We believe that women want their money to be put to work, not just for financial returns but to bring broader benefits – for society, for the environment, and for the world we live in. And this is what we heard from the women that Moxie Future surveyed. Among the women we polled for this analysis, 83 percent are concerned about where their money is invested, 69 percent feel compelled to invest ethically, and 63 percent are driven to do so. Women are more likely to be engaged in responsible investment and motivated to act if their income level and financial confidence are higher.

Quoting the words of executive vice-president and Head of Marketing Department (2014) of DSP Black Rock Investment Managers Pvt. Ltd.; Aditi Kothari, **“Women are inclined towards safety while investing and hence put more money in instruments that yield fixed returns.”** In cases where women live separately from their husbands, they suffer a lot of hardship in matters of divisions of financial assets. Despite the numerous options available, making judgments can be difficult at times. Women are soaring higher in every sphere, including careers, women's workforce, inheritance, and so on, increasing their contribution to global wealth. Women are expected to own \$72 trillion, or 32% of all wealth worldwide, by 2020, up from \$ 51 trillion in 2015. Financial planning industry is also refocusing its marketing strategies towards women and for a good reason. Marketers are also trying to rebuild

messages around what women investors want rather than what they do wrong. The whole perspective of financial planning is changing due to the unique needs of women concerning their finances.

## **2.NEED FOR FINANCIAL PLANNING FOR EDUCATED YOUNG WOMEN**

Women do far more work than men throughout their lives, but the financial incentives they receive are often insignificant or non-existent. Despite juggling job and home responsibilities, women are financially reliant on family members. Women not only live longer (in India, they outlast men by 2 to 3 years), but they are also frequently observed caring for their husbands as they age. According to the 2011 census, women have a birth expectancy of 68 years, while men have a birth expectancy of 66 years. In addition, women in the 65-year-old age category exceed men by 3.40 million to 3.08 million. According to the statistics above, women endure far greater obstacles in their later years than males. There are other factors also which disturb their working life such as, moving with the husband to a different location for a job or abroad on a dependent visa, orthodox family values, etc.

Women, on the other hand, have a low level of financial confidence. Despite earning well and managing all aspects of their lives admirably, they lack the confidence to manage their finances and delegate all financial decisions to their male counterparts. They have a limited understanding of current financial goods and investment options. They don't invest aggressively when it's needed if they invest at all. The conditional barrier of not being able to consider themselves as financially savvy causes them to avoid all possible financial decisions, which serves as a foundation for male exploitation of women. However, it is more often seen that women need to independently handle financial decisions later in life. Therefore, they need more careful planning for their old age, which includes retirement planning, healthcare insurance and pension planning etc.

When it comes to money, women continue to struggle to achieve parity in terms of a salary commensurate with their abilities and performance. They are paid significantly less than men, and they bear a larger duty to maximize the value of every dollar. As a result, they are more likely to obtain solid financial advice at all levels. Women can be financially independent only if they can make financial decisions independently. This is possible with the help of proper financial planning techniques Women's financial independence is becoming increasingly significant in today's society. Consequently, regardless of age, a woman should begin making her own financial decisions at every stage of her life to ensure a secure future and a stable lifestyle.

Men and women are conditioned differently, and as a result, they have different perspectives on risks, savings, and investments, among other things. Women are actively involved in non-financial and financial parts of preparing the future for themselves and their families, regardless of whether or not they work. However, ladies are at a loss when it comes to taking over all decisions because they are accustomed to men making these decisions for them. There are other reasons why a woman must have financial freedom and control of resources, in addition to monetary gains and independence. Women need to take charge when they are faced with unusual situations, like single working women, single parents, loss of a partner, divorce/separation, etc. As such also women are paid less, on the contrary, they live longer than men so they need to be more prepared for the future than men. A working person should have the proper plan developed for allocating the funds in judicious use. Financial planning is necessary for women due to the following reasons:

### **i. Women workforce in business**

"There is an upward tendency in the participation of women candidates in business organizations in both urban and rural areas," according to the NSO (Government of India). If the woman of the house works, it is her responsibility to carefully handle

her earnings.

## ii. Divorce and Alimony

Divorce is becoming more common in India every day. As a result, a woman must arrange her money so that she can handle her income, finances, children, alimony, and expenses on her own. Although emotional outbursts are natural in such situations, financial preparation can assist to alleviate stress related to financial concerns.

## iii. Less Remuneration

A man is paid more for doing the same job as a woman, especially at higher levels of the company. This disparity, combined with the fact that India has over 74 million unmarrieds, divorced, or widowed women, far outnumbers men at any moment. As a result, individuals require greater financial flexibility and independence, which can be enhanced by smart financial counsel. They are also the carers for the next generation, whose financial prudence will determine their destiny.

## iv. Career Breaks

Due to different stages of their life, women are biologically prone to go slow and fast in their professional graphs. As a result, not only do these breaks have a significant impact on the roles they play in businesses, but they also have a significant financial impact. They must carefully manage their life so that these interruptions do not jeopardize their retirement or other long-term goals.

## v. Women are conservative

Women are risk-averse by nature and seek long-term, stable investments. It's not that males are more successful because they take risks, but a perfect balance of risk and safe investments can help a family build meaningful wealth. Women require more guidance in this area because they are more prone to safer bits, which implies more security for them.

## vi. Higher Life Expectancy

Women are living longer than males over the world, and they have a larger retirement fund to support them throughout their lives. This also implies that later-life contingencies, such as health, hospitalization, and support activities, must be planned. The average life expectancy of women is estimated to be 5 years longer than that of males. In addition, women are typically 3-5 years younger than their partners when they marry. This indicates that a woman lives 8-10 years longer than a male. As a result, she will have to manage nearly ten years of her life on her own.

## vii. Inheritance

The Hindu Succession Act gives women the right to inherit their parents' and spouses' wealth, businesses, investments, and insurance policies, among other things. As a result, women must have a solid financial plan to manage all of this.

## viii. Life style

When it comes to travel, shopping, and spending money, women are no different than men. As a result, proper financial planning is required to attain one's goals without having to worry about money. Women are thriving in every sector, and trends are changing her mental process as well, but she must recognize the need of participating in the financial processes that surround her sooner rather than later.

## 3. USEFULNESS OF WOMEN IN FINANCIAL ROLES

*The secret to multitasking is that it isn't multitasking. It's just extreme focus and organization. By Joss Whedon*

For centuries, a woman's responsibility has been to be able to handle multiple tasks and do them well. She accomplishes it effortlessly because she is born with multitasking abilities, which provides her an advantage over men. Women are very task-oriented but after a

lot of calculation and planning. This orientation is an edge that the financial industry desperately needs in its task force to succeed. The farsightedness and precision of reading economic markers which were believed to be men's areas of expertise are emerging to be a far better forte of women in most areas of work. Financial planners are including women in household investments and long-term objectives because it broadens the perspective and adds value in terms of experiential learning for giving shape to the desired goals for managing the family's hard-earned finances. Companies are finding themselves at a loss if they did not involve women team workers in the budgetary planning at senior levels. Women are great at getting into someone else's shoes and that makes them better at understanding the goals emotionally and objectively to suggest balanced financial plans.

It has been proven that having more women in the financial sector increases bank stability, resulting in higher returns for investors and employees (according to a 2018 study by the world economic forum). According to this study, having women on board from both the client and the company side made the banking industry more stable since they are more resistant to stress, have greater capital buffers, and had lower non-performing loan proportions.

#### 4. FACTORS AFFECTING FINANCIAL PLANNING

Every corporate organization, household, and even an individual relies heavily on financial planning to stay afloat. Any unit's financial success is determined by how strong its financial strategy is, how well it is implemented, and how well it is controlled. As a result, proper financial planning is the first step toward sound financial success. A well-integrated financial plan, which keeps into account short-term as well as long-term requirements and finds ways and means to meet the same can have a very good long-term impact.

Every person who earns money has financial objectives and expectations that he or she wishes to achieve

with their earnings. Such objectives are included in a smart financial strategy. Financial planning guarantees that the inflow and outflow of funds are properly balanced. Anyone who creates a sound financial plan considers present needs, anticipated future needs, and unanticipated circumstances. A person who makes a sound financial plan can meet uncertainty as well as planned future expenditure without any hassle. Such sound financial planning leads to adequate liquidity throughout the year. Since financial planning involves parking the funds into the best available options, a sound financial plan always covers the cost of investment and will ensure that the cost of investment is less vis-à-vis the benefits reaped from the investment. Financial planning entails not only putting spare funds into the right options but also a continuous evaluation of previous decisions and corrective actions so that, in the long run, the individual's financial situation improves and benefits continue to flow in from previously made decisions. Following are the factors affecting financial planning:

- i. **Political issues** It is commonly stated that a country with a stable political environment prospers economically. Political parties have an indirect impact on financial goods and stock performance.
- ii. **Economic growth** It is self-evident that a country with favorable economic growth will benefit the growth of a company operating there. It will result in a rise in stock values as well as a reduction in inflation and interest rates. When a country's economic development slows, stock values fall and inflation and interest rates rise.
- iii. **Inflation:** It is a phrase used to describe a price increase. If inflation and interest rates are both high, there will be fewer returns, which will eventually lead to a drop in stock values. As a result, inflation and returns have an inverse relationship. In the case of long-term planning, however, inflation has a direct impact on returns. For example, if there is currently substantial inflation, the cost of achieving

a goal in the future will be higher, affecting financial planning.

- iv. **Interest Rates** Interest rates, like inflation, have an indirect relationship with a company's profits. It is the rate at which a company borrows from and lends to banks and other financial organizations.
- v. **Global issues** The country's economy is being impacted by many global challenges. For example, if oil prices rise internationally, this will have an impact on India's fuel prices. It will eventually lead to an increase in inflation rates. Any changes in the economic conditions of a foreign country will have a direct impact on the investment made by Indian investors because of cross-border investments. As a result, it may be stated that the status of a business enterprise in India is also determined by its foreign status.

## 5. EMERGING ROLE OF WOMEN IN FINANCIAL PLANNING

Women are still regarded as incompetent to handle the function of financial planners for the house or any organization, as has been the case for centuries. When opposed to males, their soft side is seen to make their decisions less challenging or risky. Women now make as much as males in most households, but they have less input in how the finances are handled, which they only get in the house. It has been proven time and time again that women manage household finances far better than males because they have the patience and perseverance to manage to spend even when funds are few. Women are better suited to make decisions about retirement and financial planning because they are the ones in charge of household budgets. She is well aware of the day-to-day routine expenses. That is why, she can forecast the future demands and contingency funds, which will help in planning for the future too. They also possess an eye for detail in squeezing in ways to save expenditure which is unnecessary. However, because of the programming of their minds or the minds of their male counterparts, they find themselves unable

of handling the larger picture of overall finances of a household or organization. However, if a woman takes an active role in financial planning, she can effectively manage the family's total finances. Women must realize how important is their role in supporting the financial structure of any household or organization. Men also, while playing the role of a financial planner take important inputs from women because of their strength of meticulously and intuitively managing funds in extremely important areas. Yet when it comes to giving them powers to run the financial show there is a bias or ego which withholds them. According to research, 58 percent of women delegate financial decisions to men (UBS Global Wealth Management, 6th March 2019). Women between the ages of 20 and 34 defer their financial decisions to their dads or spouses, whereas women over 51 years look up to their male counterparts in making financial decisions. On the other hand, if the male and females worked on their financial goals together it turned out to be a winner as per the UBS study. Females emerged to be more confident and less hassled when dealing with money alone.

Thus, it can be said that financial planning opens the gateways for the accomplishment of one's dreams and desires. Women's involvement will secure the finances of the family throughout life in the best way. In today's world, having an insurance plan is not enough to secure prospects. Qualified financial planning advisors can also help in assessing a good financial plan.

## 6. CHALLENGES FACED BY WOMEN REGARDING FINANCIAL PLANNING

Women face many challenges in achieving a secure financial future such as these:

- i. Despite positive indicators that the wage gap is narrowing, women still earn less than men on average.
- ii. When a woman's husband's career necessitates her to relocate, she frequently quits her job and starts a new one in the new place, often at a reduced salary.



- iii. Women frequently leave the workforce to care for their children. Even if people return to work later, they save less money and, as a result, their pensions and social security benefits decrease over time.
- iv. Women live seven years longer on average than males. This equates to an additional seven years of expenses, meals, clothing, and other necessities. If a spouse is five years older than his wife, she will be a widow for an average of twelve years.
- v. Eighty to ninety percent of women will be exclusively responsible for their finances at some point in their lives, typically due to death and divorce.
- vi. Over 40% of women in married families with more than \$1 million in investable assets are unaware of their financial situation.
- vii. Sometimes women don't receive the right guidance from family members, spouses, friends regarding where to invest.

## 7. CONCLUSION

Financial planning is necessary for women due to various reasons like women workforce in business, divorce and alimony, less remuneration, career breaks, women being conservative, higher life expectancy, inheritance, lifestyle, etc. Various factors are affecting financial planning like political issues, economic growth, inflation, interest rates, global issues, etc. Women face many challenges in achieving a secure financial future such as don't have proper knowledge regarding where to invest the money, male-dominated family, having less salary in the workplace, being solely responsible for their finances, primarily through death and divorce, etc.

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