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From the Desk of the Chief Editor

It gives me immense pleasure to unveil the latest issue of the JIM QUEST- a bi-annual referred research journal providing a platform for researchers, practitioners, academicians and professionals from functional areas of management to share innovative researches & practical experiences in the Indian and global perspective. This present issue includes robust researches in the field of financial behaviour, work-life balance, leadership competencies in virtual teams and organizational politics. Being a multi-disciplinary journal, this issue has wider implications for Indian education, tourism and financial sector. Seeing the burgeoning role of AI in industrial applications, pertinent research on automation has also been included. Moreover, this issue addresses the challenges in various industries, depicting the application of latest techniques and methodologies. Resultantly, it has come up as a blend of theoretical, empirical and experimental papers that significantly contributes to the disciplines of management and interdisciplinary areas.

I take this opportunity to acknowledge the contribution of authors whose impactful research added value to JIMQUEST's current issue.

I hope that readers will find the content of JIM QUEST informative and valuable in their professional lives.

Prof. (Dr) Daviender Narang
Chief Editor

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Do Financial Socialization and Knowledge Mediates the Relationship between Personality and Financial Behavior of Indians?

Kumar Saurabh1
Tanuj Nandan2

Abstract

Financial behavior is the ability of an individual to manage finances. The financial behavior of individuals depends on various personal and environmental factors. In this study, an attempt has been made to assess the influence of personality type, financial socialization, financial knowledge, and financial risk attitude on the financial behavior of individuals. PLS-SEM technique is used to examine the relationships on a sample of 660 using SmartPLS 2.0 software. The study is of great importance for individuals, families, and wealth managers. It made them able to understand the antecedents of financial behavior and their relative influence on the same. The research contributes to the existing literature by adding personality type as a dimension to influence an individual's financial behavior.

Keywords: *Financial behavior, personality type, financial socialization, financial knowledge, financial risk attitude, PLS-SEM*

Introduction

The financial behavior of humans is exceedingly complex (Xiao et al., 2010). It is the technique individuals use to manage personal finances (Britt et al., 2012). The management of finances refers to both planning for the short term and the long time. It further covers the creation of a provision to tide over unforeseen financial crises.

The financial behavior of an individual depends on a large number of personal as well as environmental factors. Individuals have no direct control over environmental factors such as the present pandemic of COVID-19, inflation, and interest rates. However, up to some extent, one can alter a few internal factors such as financial knowledge and financial risk attitude. These individual-specific factors influence financial behavior at the level of the individual.

Previous studies delineate financial knowledge, financial socialization, personality type, and the financial risk attitude of an individual as the main determinants of financial behavior (Zaleskiewicz, 2001).

Robb and Woodyard (2011) applied the term positive financial behavior to cover activities like budgeting for all expenses, savings for both short and long-term, and provision for emergency funds (Ali et al., 2015).

Among the factors predicting financial behavior, financial risk attitude and financial knowledge are the most consistent and essential. A review of the literature indicates that the existing research focuses on both of these two attributes. However, each predictor has differential effects on financial behavior. The results from previous studies are not consistent. This leaves the question of the causation of financial behavior. Researchers argue that these inconsistencies may be due to different contexts, such as cultures, countries, and socio-economic classes.

There are very few studies available which examine the influence of the personality type on the financial behavior of individuals. Likewise, few studies are available on financial socialization as an influencer of economic behavior. There are also limited empirical studies on these factors in the context of developing economies.

In previous studies, the relationship of financial risk attitude and financial knowledge of individual with financial behavior were not conclusive. Additionally, context of the study also influences

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these relationships. There are scarce researches in the field particularly in the context of developing economies like India. Also, the effect of personality type on financial behavior of individuals is not extensively researched.

The objective of this study is to bridge this gap in previous literature and to assess the direct and indirect effect of personality type, financial knowledge, financial socialization, and financial risk attitude on the financial behavior of individuals in the context of developing economy like India.

Literature Review and Hypothesis Development

2.1 Personality type

Robbins (2000) describes personality as the total of ways an individual reacts in a specific situation or interact with others. Personality is the collection of qualities that differentiate an individual from others (Durand et al., 2008). Personality traits are a combination of emotional, cognitive, and motivational characteristics that affect the individual's reaction to a specific situation. Individuals can be classified into type A and type B. Type A personality individuals are generally aggressive. They are in a constant deficit of time, and they wish to achieve more in less time than individuals with type B personalities (Robbins, 2000).

Personality traits of individuals have been found to affect their financial risk attitudes, and consequently their financial behavior (Siegal & Hoban, 1982; Smith, 1999; Zaleskiewicz, 2001; Mayfield et al., 2008; Wang, 2009; Krishnan & Beena, 2009; Nga & Yien, 2013; Sahi & Kalra, 2014). According to Carducci and Wong, 1998, type-A personality individuals are more risk-tolerant than their counterparts (Grable, 2000; Grable & Joo, 2004).

Personality type influences individuals' choice of information search and their financial knowledge (Durand et al., 2008; Tauni et al., 2015). Heimer (2014) describes active investors to be more extensively involved in interaction with others.

Type A individuals could be considered active, and it may be inferred that they would be involved more in socialization. According to Taggar and Parkinson (2007), personality type affects the accounting behavior of individuals. Various studies have been undertaken on the relationship between personality type and behavior (Mayfield et al., 2008; de Bruijn et al., 2007; Lauriola et al., 2001), but the results of previous studies are inconclusive.

In this study, an attempt is made to establish the relationship between personality type and financial socialization of Indian middle-class investors.

The following research hypotheses related to personality type are proposed for the purpose of the study:

H1: Personality type influences the financial socialization of the individual (Per Fin_Soc)

H2: Personality type influences the financial knowledge of the individual (Per Fin_Kno)

H3: Personality type influences the financial risk attitude of the individual (Per Fin_Risk)

H4: Personality type influences the financial behavior of the individual (Per Fin_Beh)

2.2 Financial Socialization

The process by which youngsters gain financial knowledge and attitude relevant to their functioning is known as financial socialization (Ward, 1974). Danes (1993) defines financial socialization as the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the well-being of the individual. Individuals with different levels of socialization develop different understandings about money (Lau, 1998; Newcomb & Rabow, 1999; Hira & Mugenda, 2000). Individuals develop financial skills, knowledge, and attitude by interacting with various socialization agents such as parents, family, and peers. The family unit has been recognized as the primary agent through whom children start to experience money management, while friends and media are recognized as the secondary agent for socialization (Moschis & Churchill, 1978; Moschis, 1987; Malaysia, 2011; Hira, 2012).

The financial socialization of individuals is highly correlated with the economic behavior of their parents (Kim & Lee, 2020; Manly et al., 2017; Black et al., 2017). Individuals gain financial knowledge and obtain financial behavior since their childhood by observing their parents and family. Later on, friends and media influence their knowledge and behavior towards financials (Moschis & Churchill, 1978; Moschis, 1987). The process of obtaining knowledge is known as financial socialization (Hira et al., 2013; Danes, 1993; Ward, 1974). According to researchers, families influence the financial behavior of individuals through financial socialization (Lep et. al., 2021; Sirsch et al., 2020; Gudmunson & Danes, 2011; Kagotho et al., 2017). According to Lau (1998) and Lim et al. (2003), individuals of similar demographic profiles have different levels of understanding for finances due to their different socializations (Falahati & Paim, 2011).

The following research hypotheses related to financial socialization are proposed for the purpose of the study:

H5: Financial socialization influences the financial knowledge of the individual (Fin_Soc Fin_Kno)

H6: Financial socialization influences the financial behavior of the individual (Fin_Soc Fin_Beh)

2.3 Financial Knowledge

Financial knowledge refers to the basic understanding of financial concepts related to financial management practices. According to Huang et al. (2013), personal financial knowledge refers to the knowledge of financial concepts (Garg & Singh, 2018). Amongst these are cash flow, credit, savings, and efficient management of one's investments. An individual who makes informed choices effectively and efficiently is considered knowledgeable (Britt et al., 2012).

Page and Uncles (2004) define financial knowledge as the body of facts and principles accumulated by an individual about the economic domain (Hansen, 2012). Financial knowledge can further be categorized as subjective and objective financial knowledge. Personal financial knowledge refers to the perception of individuals towards their knowledge, while objective financial knowledge refers to absolute knowledge measured against objective standards (Alba & Hutchinson, 2000).

In the present study, we focus on the subjective financial knowledge aspect of the individual. This is in line with past studies, which suggest that subjective knowledge is a stronger motivation than objective knowledge (Hansen, 2012; Flynn & Goldsmith, 1999). According to Herd et al., 2012, financial knowledge is an individual's knowledge about one's financial situation (Garg & Singh, 2018).

Financial knowledge is an essential factor affecting an individual's financial behavior (Rostamkalaei & Riding, 2020; Urban et al., 2020; Henager & Cude, 2019; Atkinson & Messy, 2012; Falahati et al., 2011). According to Edmiston and Gillett-Fisher (2006), individuals' financial knowledge affects their financial behavior (Wang, 2009). Knowledgeable individuals evaluate information differently and exhibit more responsible financial behavior than their less knowledgeable counterparts (Chen & Volpe, 1998; Perry & Morris, 2005; Wang, 2009). Robb and Woodyard (2011) observe that both subjective financial knowledge influences the financial behavior of individuals (Davis & Runyan, 2016).

Previous studies reveal that, generally, financial education improves positive financial behavior (Sirsch et al., 2020; Bernheim et al., 2001; Hilgert et al., 2003; Perry & Morris, 2005; Norvilitis et al., 2006). Other studies find contrary views to hold. Robb and Sharpe (2009) found a negative relationship between financial knowledge and financial behavior, indicating that high financial knowledge depicts low financial behavior. Hence, the direction of the relationship between financial knowledge and financial behavior is not well established. In this study, an attempt is made to develop the relationship between financial knowledge and the financial behavior of Indian middle-income investors.

The following research hypothesis related to financial knowledge is proposed for the purpose of the study:

H7: Financial knowledge positively influences the financial behavior of the individual (Fin_Kno Fin_Beh)

2.4 Financial Risk Attitude

Investment decisions are often taken under uncertainty; hence a certain amount of risk is always involved in investment decisions (Campara et al., 2017). Financial risk attitude describes the tolerance of investors towards risk. According to Corter and Chen (2006), individuals have different risk attitudes, which affect their investment behavior. Past studies have shown that the financial risk attitude of an individual could mainly be of three types: risk-seeking, risk-neutral, and risk-avoiding (McCrae, 2006). According to Davies & Brooks (2013), the risk tolerance of an individual represents the willingness to take on additional risks that could reduce future wealth (Nandan & Saurabh, 2016). Financial risk tolerance is the highest amount of uncertainty that an investor is ready to accept during financial decision-making (Madinga et al., 2022; Mohan & Singh, 2017; Sages & Grable, 2010; Grable, 2000). According to Trone et al. (1996), prediction of financial risk tolerance is difficult as it is different for each individual (Hemrajani & Sharma, 2018). Financial risk tolerance is one of the antecedents to the financial behavior of an individual (Fisher & Yao, 2017; Bucciol & Zarri, 2015).

According to Nosic and Weber (2007) and Corter and Chen (2006), the investment habits of individuals are predicted by their financial risk attitudes. Joo and Grable (2004) found in their study that the financial risk attitude of individuals influences their financial behavior. Financial risk tolerance influences the financial decision-making and financial behavior of an individual (Shusha, 2017).

The following research hypothesis related to financial risk attitude is proposed for the purpose of the study:

H8: Financial risk attitude influences the financial behavior of the individual (Fin_Risk Fin_Beh)

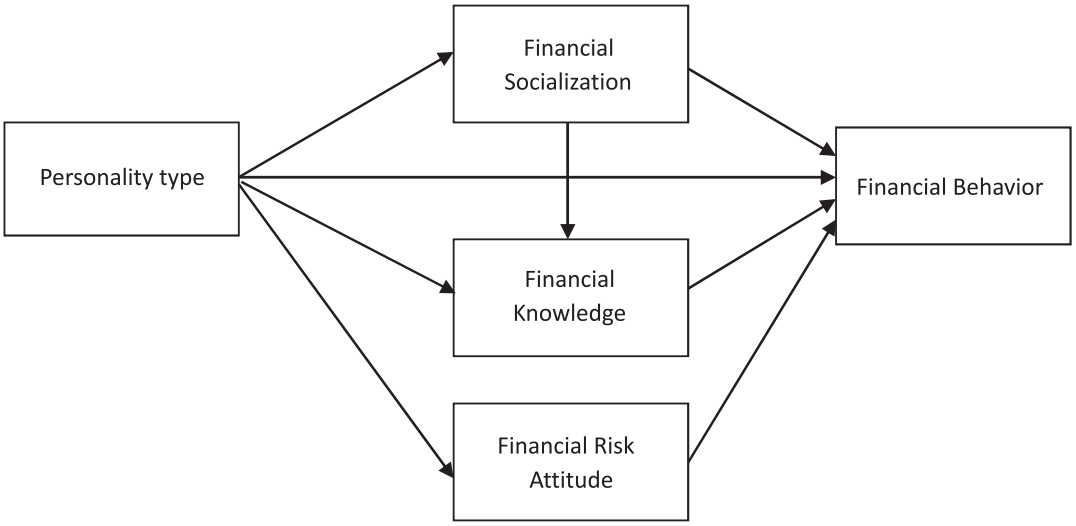

Figure 1: Research Model

Research Methodology

This article has conceptualized the research model with the help of previous studies, as shown in Figure 1. A single cross-sectional survey was conducted to test the relationships. The population of the sampling universe was not known in totality hence cannot use the random sampling techniques. Accordingly, the non-random sampling method, like the judgmental sampling technique, was used. Moreover, respondents did not provide information about financial aspects; hence snowball sampling technique is used for data collection. Data is collected using a combination of purposive-convenience sampling and snowball sampling. Efforts were made to order data evenly across the country to trim down the limitations of non-random pieces.

Responses were measured using a five-point Likert type scale with anchors between 1 (strongly agree) and 5 (strongly disagree) for each statement as the case with independent and dependent variables. To minimize the limitations of the sampling procedure, we employed a large sample size. Nine hundred questionnaires were distributed, out of which 697 were collected, thereby constituting a 77.44 percent response rate. Of these, 37 responses were either incomplete or having patterned responses and were hence discarded. The final sample size for this study was 660.

Table 1 reflects the demographic characteristics of the respondents. Out of 660 respondents, 163 respondents were female, and 497 were male; 149 respondents were single, while 511 were married.

Table 1: Demographic Characteristics of Respondents

Characteristics	Frequency (%)
Gender	
Male	497 (75.3%)
Female	163 (24.7%)
Age	
< 25 years	53 (8%)
25-35 years	210 (31.8%)
35-45 years	189 (28.6%)
45-55 years	138 (20.9%)
>55 years	70 (10.6%)
Marital Status	
Single	149 (22.6%)
Married	511 (77.4%)
Occupation	
Government Employee	323 (48.9%)
Private Employee	223 (33.8%)
Self Employed	58 (8.8%)
Retired	14 (2.1%)
Others	42 (6.4%)
Education Qualification	
Less than Graduation	54 (8.2%)
Graduation	229 (34.7%)
Post-Graduation	216 (32.7%)
Doctorate	26 (3.9%)
Professionally Qualified	135 (20.5%)

The financial behavior of individuals is of prime concern for the individuals themselves, policymakers, and financial planners. Financial planners are required to know the state of financial behavior of individuals across time for better implementation of planning activities. This construct was measured using a seven-item scale adapted and modified from Grable & Joo (2001). The items with factor loading less than 0.7 were dropped, leaving three things in the final analysis. A sample item is 'I set money aside for savings.

There is one independent variable, namely, the personality type of the individual. The construct was measured using a six-item scale adapted from Grable & Joo (2001). In the final analysis, only three items were considered because the three items were dropped due to factor loading of less than 0.7. A high score on the scale is taken to denote the personality type of the respondent to be Type-A. A sample item is 'I generally dominate the group which I belong to.'

Financial socialization, financial knowledge, and financial risk attitude have been considered mediating variables for the study. Items of financial socialization were adopted and modified from the scale used by Hira et al. (2013). A sample item is 'My parents used to talk about the importance of savings when I was young.'

Items of financial knowledge were adopted and modified from the scale used by Robb and Woodyard (2011). A sample item is 'I am good at dealing with day-to-day financial matters such as checking accounts, credit and debit cards, and tracking expenses.' The articles of financial risk attitude were adopted and modified from the scale used by Grable and Joo (2004). A sample item is 'I am more comfortable putting money in a bank account than in the stock market.'

Construct validity of the study variables was assessed using convergent and discriminant validity. Convergent validity is the 'degree to which different measures of the same construct are highly correlated' (Hair et al., 2007). For convergent validity, we have used factor loadings, Scale Composite Reliability (SCR), and Average Variance Extracted (AVE). From Figure 2, it may be seen that the values of factor loadings are more significant than 0.6. From Table 2, it may be seen that the importance of SCR is more than 0.7 (recommended by Hair Jr., 2007), and those of AVE are more significant than 0.5 (Fornell & Larcker, 1981; Hair Jr., 2007). We may conclude that constructs of the study possess construct validity. The constructs' internal consistency is assessed by Cronbach's α and a measure of composite reliability, which is regarded as more suitable as it does not assume that all indicators are equally reliable (Hair et al., 2012). The reliability score of all these variables is above 0.7088 except for personality type and financial risk attitude, which are 0.6294 and 0.6511, respectively; these are above the minimum threshold level for the variable (Nunnally, 1978). Therefore, all the constructs have good reliability. Multicollinearity is not an issue in this study as the variance inflation factor (VIF) is smaller than 5 (Hair Jr. et al., 2012).

Table 2: Cronbach's Alpha, SCR, AVE

Construct	Cronbach's Alpha	SCR	AVE	R2
Personality Type	0.6294	0.8017	0.5742	
Financial Socialization	0.7576	0.8455	0.5809	0.2127
Financial Knowledge	0.8377	0.8858	0.6097	0.2935
Financial Risk Attitude	0.6571	0.794	0.564	0.0175
Financial Behaviour	0.7088	0.8374	0.6321	0.2426

Discriminant validity tests whether unrelated measures of constructs that should not relate are irrelevant or not. It ensures that a construct does not 'correlate too highly with measures from which it is supposed to differ' (Campbell, 1960, p. 548). In Table 3, the leading diagonals are the square roots of AVE, and the lower half entries are the correlation coefficients. It can be seen that the diagonal elements are more significant than the lower half correlation coefficients. Overall, we may infer that both these tests confirm construct validity.

Variables used in the study were not normally distributed; hence we have used PLS-SEM as it is a distribution-free method for analysis. The study used Partial Least Squares (PLS) Structural Equation Modeling (SEM) approach (PLS-SEM) to examine the relationship of psychographic antecedents with financial behavior using SmartPLS 2.0 software. We apply the PLS approach with 5000 subsamples bootstrapping procedure (Hair Jr. et al., 2014).

Table 3: Correlation and Discriminant Validity

Construct	1	2	3	4	5
Personality Type	**0.7577**				
Financial Socialization	0.461	**0.7621**			
Financial Knowledge	0.387	0.515	**0.7808**		
Financial Risk Attitude	0.132	0.063	0.007	**0.7509**	
Financial Behaviour	0.34	0.376	0.331	0.26	**0.795**
Diagonal elements measure the square root values of AVE					

The structural model was evaluated using the R square for the dependent variable and the size, t-statistics, and significance for the path coefficients (Staples et al., 1998). To assess whether path coefficients are statistically significant or not, bootstrap procedures are used to estimate standard errors for calculating t-values (Fornell & Barclay, 1983). The results are examined at a 5 percent level of significance level, and the t-statistics value at the 0.05 level is 1.96. If the t-statistics value is greater than 1.96, the path is significant (Efron, 1979; Efron & Gong, 1983).

Results

4.1 Structural Model Results

The results from PLS-SEM are given in table 4 and figure 2. All three variables are positively related to financial behavior. In addition, all these relationships are statistically significant at the 5 percent level.

An individual's personality type has a positive influence on financial socialization, financial knowledge, financial risk attitude, and financial behavior. Although it has a statistically insignificant impact on financial risk attitude as the R2 value comes to 0.017, the personality type of the individual explains only 1.7 percent variation in financial risk attitude.

4.2 Goodness of Fit of Model

The PLS approach using SmartPLS does not provide a statistic of overall model fit (Chin, 1998). The model is evaluated by calculating the constructs' R2-values, indicating the explanatory power of the predictor variable(s) on the respective construct. Further, we use a diagnostic tool, the goodness of fit (GoF) index, by Tenenhaus et al. (2005).

The GoF measure to evaluate the global model fit is calculated as Tenenhaus et al. (2004): GoF = geometric mean of average communality and average R2 values of endogenous variables. The GoF index of this study was 0.3369, which indicates a moderate to extensive GoF index and that the model has better explaining power in comparison with the baseline values proposed by Wetzels et al. (2009): GoFsmall= 0.1; GoFmedium=0.25; GoFlarge=0.36. Thus, the model provides adequate support to validate the PLS model globally.

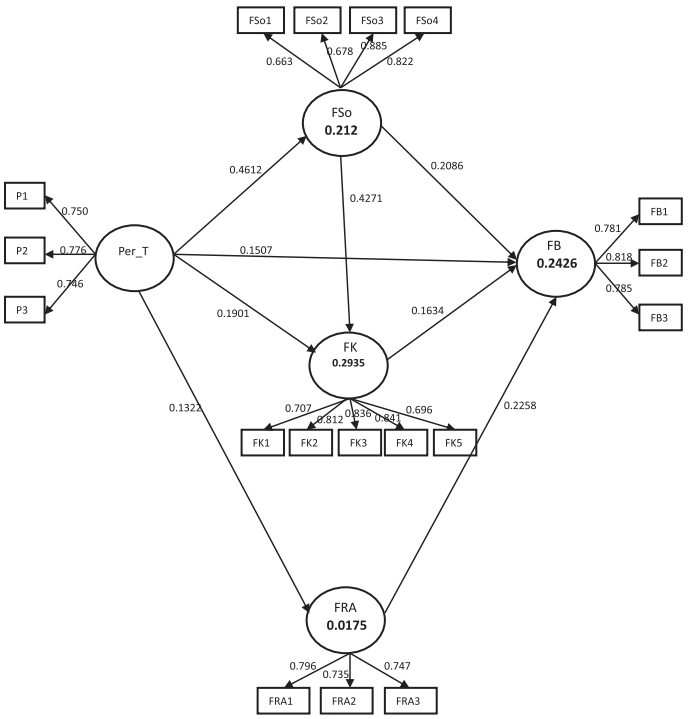

Figure 2: Results of Structural Model

1. Findings and Discussions

The results of hypothesis testing indicate that personality type influences:

a. financial knowledge (0.1901, p<0.001);
b. financial socialization (0.4612, p<0.001);
c. financial risk attitude (0.1322, p<0.001); and
d. financial behavior (0.1507, p<0.001)

This signifies that the personality type of an individual is the influencing characteristic for all the other responses; it influences the socialization process (Durand et al., 2008) as well

as the financial knowledge attained by individuals (Tauni et al., 2015, Durand et al., 2008), their risk attitude (Nga & Yien, 2013) and consequently their financial behavior (Mayfield et al., 2008, de Bruijn et al., 2007). The results are in line with previous research, which narrates that personality type is the basic tenet of an individual, affecting all the individual's compound traits (Mowen, 2000). Personality characteristics differentiate between two individuals. Despite having the same demographics, the personality characteristics of two individuals could be different. Personality type further influences every other secondary trait of the individual.

The hypothesis that the financial socialization of an individual positively influences the individual's financial knowledge (0.4271, p<0.01) is accepted, and it supports the results of a previous study (Hira et al., 2013). Financial socialization positively influences financial behavior (0.2086, p<0.01) is also accepted and is also in line with the findings of previous studies (Lep et. al., 2021; Sirsch et al., 2020; Manly et al., 2017; Black et al., 2017). Financial socialization, either through the influences of parents since childhood or through other sources such as peers and media since adulthood, has an impact on the behavior of the individual. Individuals learn financial management practices by observing others, and they develop habits regarding savings and investments similar to the conventions of their parents. They even select instruments identical to those used by their parents. The results are in line with previous researches (Falahati & Sabri, 2015).

The hypothesis that financial knowledge of an individual positively and significantly influences financial behavior (0.1634, p<0.01) is accepted and is in line with the studies (Sirsch et al., 2020; Falahati et al., 2011, Nang, 2009, Norvilitis et al., 2006). It signifies that a knowledgeable individual will exhibit more positive financial behavior. The knowledgeable individual has a better understanding and has better information processing abilities and is expected to behave efficiently.

The hypothesis that the financial risk attitude of an individual positively and significantly influences financial behavior (0.2258, p< 0.01) is also accepted (Joo & Grable, 2004). It signifies that a risk-averse investor is likely to exhibit better positive financial behavior. An individual with less risk tolerance is expected to better prepare for the future and any unforeseen financial crisis.

Table 4: Bootstrap Summary of Research Model and Hypotheses Results

Hypothesis	Path	Path Coefficient	Standard Error	t-Statistics	Results
H1	Fin_Kno→ Fin_Beh	0.1634	0.044	3.7157	Supported
H2	Fin_Soc→ Fin_Kno	0.4271	0.0377	11.3179	Supported
H3	Fin_Soc→ Fin_Beh	0.2086	0.0473	4.413	Supported
H4	Fin_Risk→ Fin_Beh	0.2258	0.0357	6.3218	Supported
H5	Per→ Fin_Kno	0.1901	0.0385	4.9416	Supported
H6	Per→ Fin_Soc	0.4612	0.0342	13.4957	Supported
H7	Per→ Fin_Risk	0.1322	0.0447	2.958	Supported
H8	Per→ Fin_Beh	0.1507	0.0442	3.4144	Supported

Conclusion

It is evident from the results of empirical study that personality type is the basic variable which influence each other variables in the study. It affects financial socialization (Durand et al., 2008) of individuals as an investor of personality type A will be more prone to socialization in comparison to counterpart of type B personality type. Personality type also influences the objective financial knowledge of individuals (Tauni et al., 2015, Durand et al., 2008) as it is more of confidence in one's abilities. It also influences financial risk attitude (Nga & Yien, 2013) and financial behavior of individuals (Mayfield et al., 2008, de Bruijn et al., 2007). Financial socialization influence both financial knowledge (Hira et al., 2013) as well as financial behavior (Lep et. al., 2021; Sirsch et al., 2020; Manly et al., 2017; Black et al., 2017) of individuals. Financial knowledge (Sirsch et al., 2020; Falahati et al., 2011, Nang, 2009, Norvilitis et al., 2006) and financial risk attitude (Joo & Grable, 2004) both influence financial behavior of individuals.

Managerial Implications and Limitations

This study can be helpful to financial advisors in understanding the importance of personality type and consequently the financial behavior of an individual. Personality is the essential characteristic which influences the financial socialization, financial knowledge, financial risk attitude, and financial behavior of the individual. Often, financial advisors/planners

depend only on demographics, especially the gender of the clients, although it is the personality type that defines the psychographic gender of the individual. For financial planning and risk profiling of a client, advisors are advised to carry out personality profiling. The personality profile of investors indicates the risk appetite and reveals the individual's socialization and financial knowledge adaptability. Type A individuals have a high inclination towards socialization, and advisors/planners could be a source of financial socialization. Moreover, it isn't easy to obtain direct information related to financial behavior for conservative investors but performing personality profiling is easy. This personality profiling could help the financial planner determine the individual's financial risk attitude, which will ultimately influence the financial behavior of the same and hence advised accordingly to reach the higher level of positive financial behavior.

Along with that, financial socialization also affects the financial knowledge and consequently the financial behavior of the individuals. Financial service firms can utilize this relationship and use media or personnel as a socializing agent who can enhance the awareness and knowledge level of individuals and consequently influence the individual's financial behavior. An individual oneself can utilize financial socialization for the improvement of one's behavior. By selecting the appropriate media for information collection related to the financial market, discussing financial matters with the proper knowledge of financial needs will enhance the individual's financial understanding. Hence, by putting little care about socialization, one can work towards achieving higher positive financial behavior.

Limitations and Scope for Future Research

Despite caution and care were taken, this study suffers from some limitations. Firstly, it was conducted on moderate sample size. This creates issues of generalizability to different geographical and cultural contexts. A similar study conducted on different cultures will have different results.

The study considered subjective financial knowledge of individuals, which could be different from the objective expertise of individuals. It's possible that individuals with high accurate knowledge rate one's financial knowledge as low or vice versa; this will affect the mediator financial risk tolerance and hence financial behavior of the individual. A self-reported questionnaire was used in this study which has its limitations; an experiment-based study might have produced different patterns.

Finally, the data collected did not consider cultural aspects, which could be exciting for future research. Moreover, the results obtained from this study could be verified further by using experimental studies.

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Examining the Nexus among Quality of Work Life, Work Alienation and Turnover Intentions: A PLS-SEM Approach

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Abstract

The extant literature on food delivery services generally covers various attitudinal and behavioural aspects of consumers. On the other hand, research work concerning delivery boys, who have extended undeniable support in the expansion of online food delivery companies in the Indian food market, has still not gained momentum. In this regard, this study aimed at examining the effect of quality of work life on turnover intentions of food delivery boys. It also investigated the mediating role of work alienation between aforementioned constructs. Data were collected from 192 food delivery boys employed in two online food delivery companies – Zomato and Swiggy. Data analyses were carried out using PLS-SEM. The results revealed that quality of work life had a significant negative influence on delivery boys' intention to quit. Further, work alienation was found to be a significant partial mediator in the relationship between quality of work life and turnover intentions.

Keywords *Quality of Work Life, Turnover Intentions, Work Alienation, Delivery Boys, PLS-SEM*

Introduction

Due to easier access to digital platforms, progressing lifestyle patterns, and changing eating habits of the people, the online food delivery market has evolved rapidly in India and is expected to touch about US$ 21.41 billion by 2026 (Renub Research Report, 2021). Online food delivery companies have poured millions of dollars into the Indian food market and are continuously upgrading their services to achieve a larger customer base. One of the key players ensuring the smooth operation of such a humongous online business is the delivery boy, who zips around the cities on his two-wheeler and ensures the timely delivery of food packets (Sharma et al., 2021). The undeniable formula for any organization's success is to ensure the satisfaction of its customers, along with extending the best customer experience. Food delivery boys attempt to realize this mission of the companies expediently by not only delivering the respective orders to their customers but also handling their expectations and reactions effectually (Sen, 2018).

Keeping in view the significant linking role played by the delivery boys between thriving companies and pleased customers, it will be in the best interest of the companies to ensure their longer stay in the organizations. However, one of the critical challenges faced by the foodservice sector is high attrition rates (Li et al., 2020; Pathak & Majumdar, 2020). These situations often result in dysfunctional consequences for an organization in the form of reduced workforce morale, low organizational performance, and lessened effectiveness (Saleem & Qamar, 2017; Wang & Wang, 2020). On the other hand, employees leaving their jobs also bear expenses related to unemployment, seeking new jobs, getting acquainted with a new workplace, etc. (Ahmed et al., 2016; Holtom et al., 2008). Such undesirable outcomes are some of the reasons behind the continuous search carried out by practitioners and managers in identifying and understanding the possible drivers of high turnover intentions among the workforce (Singh & Randhawa, 2021a). In this regard, studies have argued that poor quality of work life (QWL) may prompt the workforce to look for alternative jobs, and thereby, companies may lose staff undertaking indispensable roles in extending quality services to customers (Kim et al., 2020; Nowrouzi et al., 2016). Similarly, it has been suggested that the presence of negative workplace attitudes amongst the workforce in the form of work alienation may stimulate their decision to depart from their organization (Chiaburu et al., 2014; Tummers et al., 2015). Nevertheless, the underlying process linking QWL and work alienation with turnover intentions among Indian online food delivery boys has not received much

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attention. Additionally, the extant literature in the context of food delivery services usually focuses on customers' attitude, their experiences, and behavioural intentions (Chandrasekhar et al., 2019; Gupta & Duggal, 2021). However, empirical research concerning online food delivery boys, who shoulder the paramount responsibility of gratifying their customers is scarce. Further, work alienation has been extensively researched in the western context (Hirschfeld & Feild, 2000; Sawyer & Gampa, 2020). Research evidence has also indicated that work alienation mediates the relationship between person-organization fit and OCB (Jesús Suárez-Mendoza and de Lara, 2007), job-related tension, role overload, and work effort (Awang, 2017), etc. Still, there exists a paucity of research on the mediating effect of such a pessimistic attitude between QWL and turnover intentions especially in the context of food delivery boys in a non-western nation like India. Based on the aforementioned discussion, the present study aims at exploring the direct along with the indirect effect of QWL (through work alienation) on turnover intentions among Indian online food delivery boys.

In addition, the study also aims at making a methodological contribution in the field of social sciences. To elaborate, most of the former research work in the management research area has been employing conventional first-generation data analysis procedures despite their limitations. The recent evolution in the quantitative methods has suggested the use of a more advanced technique such as PLS-SEM i.e. partial least squares-structural equation modelling for mediation and related data analysis (Hair et al., 2019). Thus, the present study supplements the existing literature by employing the avant-garde data analysis technique.

Theoretical Background and Hypotheses Development

Quality of Work Life (QWL)

Since its inception at the beginning of the 1970s, the expression "quality of work life" has emerged as an area of vital importance for organizations worldwide. This is due to its association with multifarious perks for the organizations in the form of highly prolific employees with stronger organizational commitment, and enhanced levels of work performance (Mohammadi & Karupiah, 2020). QWL can be considered as the ability of an individual to fulfil his needs either through the gained experience at the job or by performing certain activities at the place of work (Šverko & Galić, 2014). An effective QWL consists of various techniques and methods by which organizations can ensure the comprehensive well-being of an individual apart from work-related development (Moradi et al., 2014). This includes the provision of appropriate working conditions, high job and career satisfaction, a sense of control at work, reduced work stress, and adequate work-life balance (Van Laar et al., 2007).

Work Alienation

Latin in origin, the term "alienation" means "to estrange"; i.e. it involves the action of bringing certain separation between oneself and others. Earlier studies on alienation follow two frames of reference: the Durkheimian opinion, which relates the psychological state of an individual with alienation (Adya, 2008), and the Marxian viewpoint, which considers social factors such as poor economic situations and low education levels to be the antecedents of alienation (Sawyer & Gampa, 2020). The multidimensional treatment of work alienation stems from the works of Seeman (1959) and Shepard (1972), who described alienation as an aggregation of various constructs, namely powerlessness, normlessness, self-estrangement/self-evaluative involvement, isolation/instrumental work orientation, and meaninglessness. In contrast, contemporary researchers such as Hirschfeld and Feild (2000) and Nair and Vohra (2010), among others, opined work alienation as a unitary construct that involves psychological separation, disengagement, and the estrangement of an employee from his work.

Turnover Intentions

Employee turnover is one of the most vital organizational occurrences that has attracted scrutiny by researchers and academicians for many decades (Bartunek et al., 2008). Turnover intention refers to the desire of an employee to exit an organization in the foreseeable future (Chavadi et al., 2021; Schyns et al., 2007). Employees' intention to quit an organization signifies a pivotal stage where employers still can undertake corrective measures to avert the actual departure of such employees who are willing to leave the organization (Lee et al., 2021). The dire consequences of turnover intentions are manifold. It may weaken the relational psychological contract orientation of employees and enhances their deviant workplace behaviours (Mai et al., 2016). In addition, it may also act as a barrier to the attainment of organizational goals by reducing workforce productivity (Mamun & Hasan, 2017).

QWL and Turnover Intentions

While assessing the degree and level of QWL, an employee usually considers the effectiveness of an organization in realizing his salient needs (Daud et al., 2015). Building on this

perception of employees, it has been propounded that organizations ensuring concerned work environments and desirable QWL are more likely to retain diligent employees for longer periods (May et al., 1999). On the contrary, omission of crucial elements (desirable work conditions and meaningful work) from the workplace enhances employees' dissatisfaction not only from their jobs but also from the organization and intensifies their turnover intentions (Adhikari & Gautam, 2010; Mosadeghrad, 2013). This study proposed the use of the Met Expectations theory of turnover (Porter & Steers, 1973) for explaining the relationship between QWL and one's decision to quit his job. As per this theory, met expectations i.e. "the discrepancy between what a person encounters on this job in the way of positive and negative experiences and what he expected to encounter" (Porter & Steers, 1973, p. 152) plays a significant role in shaping one's withdrawal behaviour. To elaborate, employees tend to compare their present choices with their earlier expectations with regard to their respective jobs and in case they found any discrepancy then they may decide to depart from their employing organization (Surienty et al., 2014). This comparison underpins the implications of QWL for the turnover intentions of delivery boys. For instance, if delivery boys perceive their present QWL as not up to their expectations whereas other organizations can facilitate them with better QWL, they may entertain the notion of leaving their current organization. In addition, studies have also extended empirical evidence substantiating the negative impact of QWL on the turnover intentions of employees (Chegini et al., 2019; Els et al., 2021). In the light of the above discussion, we posit the following hypothesis:

H1: QWL will significantly negatively affect turnover intentions.

Work Alienation and Turnover Intentions

Kanungo (1979) pointed out the linkage between work alienation and turnover intentions among employees by expounding that employees having high levels of work alienation are more inclined towards quitting their jobs compared to their counterparts. Feelings of helplessness and normlessness in the case of alienated employees hinder their adeptness and competence in realizing organizational objectives along with gratifying their own needs. Their self-esteem also takes a back seat, followed by depleted performance levels, which induces them to seek an escape from work and the organization (Efraty et al., 1991). Researchers demonstrated that an employee's perception regarding the inexistence of meaning and significance in one's job (meaninglessness) and the failure to regulate the aftermaths of one's work (powerlessness) augment his tendency towards quitting his job (Tummers et al., 2015). Harsh weather conditions, huge traffic jams, delayed orders, and abusive customers are some of the issues that are faced by the delivery boys at regular intervals. Along with this, there are certain days where they hardly earn anything due to an insufficient number of orders and waste most of their time waiting on the streets (Kumari & Roshan, 2019). Such situations are likely to generate feelings of powerlessness and meaninglessness among them and consequently boost their turnover intentions. Empirical evidence also supports the likelihood that work alienation fosters employees' intentions to quit their jobs. Du Plooy and Roodt (2010) and Taboli (2015) found a significant positive relationship between work alienation and turnover intentions among ICT sector employees and university employees, respectively. Accordingly, we proposed the following hypothesis:

H2: Work alienation will significantly positively affect employees' turnover intentions.

The Mediating Role of Work Alienation

In this study, work alienation is used as a mediator between QWL and the employees' intention to depart from an organization. The refinement of QWL generates more robust, prolific, and satisfied employees along with more flexible and effective organizations. On the contrary, the degradation of QWL would result in more alienated employees as well as fruitless and valueless organizations (Kanungo, 1983). Further, employees who are given opportunities for self-expression and assertiveness will be able to satisfy their lower and higher-order needs. In contrast, the dearth of such opportunities makes employees perceive the lack of congruence between their needs and the organization's capability to fulfill such needs. Consequently, employees may appraise their work to be meaningless and encounter feelings of powerlessness and helplessness. Since QWL comprises hierarchical needs satisfaction (Sirgy et al., 2001), its non-fulfilment will generate work alienation among employees (Efraty & Sirgy, 1990). This argument is expected to be true in the case of food delivery boys who are hardly able to satisfy their various hierarchical needs (Katrodia, 2020). Further, alienated employees suffer from psychological isolation, i.e. perception of being cut off from others (Rayce et al., 2018). Such feelings result in certain unfavourable aftermaths in the form of a reduced sense of belongingness, loathness towards peers, and dissatisfaction with the present job, all of which, in turn, reinforce their desire to leave the organization (Golden et al., 2008). Thus literature review depicts that a low level of QWL will augment feelings of work alienation among employees, which will result in

enhancing their intentions to quit an organization. In this context, the following hypothesis is proposed:

H3: Work alienation mediates the relationship between QWL and turnover intentions.

In accordance with the review of existing literature, the following conceptual framework is postulated (Figure 1).

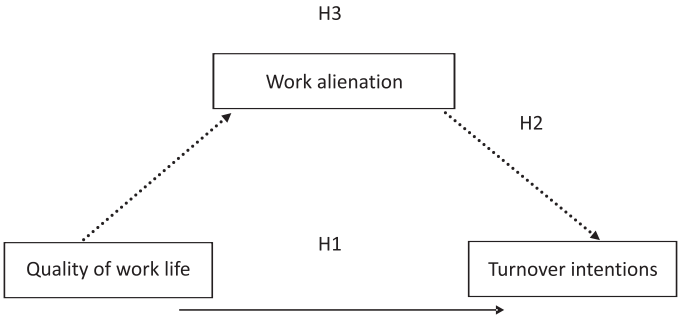

Figure 1. Proposed Conceptual Framework.

Source: The authors.

Notes: Solid line indicates direct effect of quality of work life on turnover intentions whereas dotted line indicates indirect effect through work alienation.

Research Methodology

Sampling and Settings

A purposive cum convenience sampling technique was adopted for the study. A structured research schedule was used to collect data from the delivery boys employed in two online food delivery companies – Zomato and Swiggy in Punjab, a northern state of India. The total sample size for the present study was 192. The appropriate sample size for conducting data analysis was determined through G*Power software. Using the most commonly suggested setting i.e. the medium effect size (0.15) with $\alpha = 0.05$, at a power of 0.80 for 2 predictors (Memon et al., 2020), the software recommended a sample size of 55. However, a sample of 192 was used which surpasses the minimum sample size requirements suggested by G*Power. Further, to minimize the presence of common method bias (CMB), the respondents were enlightened with the fact that there were not any correct or incorrect responses and their identities and responses would be kept confidential and anonymous (Podsakoff et al., 2003). The presence of CMB in the data was tested through the Harman single-factor test (Podsakoff et al., 2003). Exploratory factor analysis reported that the cumulative variance explained by the first factor was 41.06 per cent which did not exceed the stated limit of 50 per cent. This implied that the present study was free from the issue of common method bias to a greater extent. The demographic profile and job characteristics of the respondents indicated that 50.5 per cent were employed in Zomato and the rest were from Swiggy. 38.5 per cent of the respondents were aged between 26 and 33 years. The strength of unmarried respondents was 54.2 per cent. The majority of the respondents (44.3 per cent) had an educational qualification of 10+2. A significant portion (56.3 per cent) earned income ranging from INR 10,001 to 20,000 per month. In addition, 38.5 per cent of the respondents worked for around 10 to 12 hours every day.

Measures

Standardized scales were used to measure the three variables considered in the study. QWL was measured with a 23-item scale developed by Van Laar et al. (2007). It consisted of six dimensions namely, job-career satisfaction (JCS), general well-being (GWB), working conditions (WCS), home-work interface (HWI), stress at work (SAW), and control at work (CAW). The respondents indicated their perceptions about each item on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). To assess work alienation, Nair and Vohra's (2010) eight-item scale was used. The scale items were measured on a seven-point Likert scale, ranging from 1 (completely disagree) to 7 (completely agree). Similarly, a four-item scale of turnover intentions by Kelloway et al. (1999) was adopted for this study. The items were measured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Data Analysis

To analyse the data, the partial least squares-structural equation modelling (PLS-SEM) method was employed using SmartPLS (v.3.3.3) software. There were various reasons for using this technique. First, the present study aims at prediction, and PLS-SEM is considered as the most suitable estimation technique that can extend causal explanations (Sarstedt et al., 2017). Second, PLS-SEM is highly suggested for the mediation analysis (Richter et al., 2016). Third, this technique is also recommended for the small sample sizes (like in this study) (Hair et al., 2019). Fourth, the statistical power of PLS-SEM is also high (Hair et al., 2017b).

This technique comprises two stages, namely measurement model assessment (for establishing reliability and validity of the constructs) and structural model assessment (for testing various hypothesized relationships among constructs).

Measurement Model Assessment

To evaluate the reliability of the constructs, the values of Cronbach's alpha along with composite reliability (CR) were

determined. The values of Cronbach's alpha ranged from 0.829 to 0.904, were found to be more than the acceptable value of 0.7 (Nunnally, 1978). Also, the CR values were greater than 0.7 for all the constructs, confirming their reliability (Hair et al., 2017a) (Table 1). The indicator loadings (greater than 0.708) were also found to be satisfactory (Hair et al., 2019). Further, the values of average variance extracted (AVE) for each construct ranged from 0.601 to 0.662. As the values of CR were more than 0.70 and those of AVE were more than 0.50, convergent validity was established (Hair et al., 2014b) (Table 1).

Discriminant validity was examined using two approaches - Fornell and Larcker's (1981) criterion and heterotrait-monotrait (HTMT) ratio. The former method compares the correlations among the constructs with the square root of AVE. The results in Table 2 show that the inter-construct correlations were lower than the square root of AVE. In addition, the HTMT ratios were also reported to be lower than the suggested value of 0.85 (Hair et al., 2019; Henseler et al., 2015). Accordingly, it can be concluded that both methods ensured the existence of discriminant validity of the constructs under investigation.

Table 1. Measurement Model Evaluation

Constructs and indicators	Loadings	Cronbach's alpha	CR	AVE
Quality of work life (QWL)		0.886	0.914	0.638
JCS	0.86			
GWB	0.802			
WCS	0.774			
HWI	0.776			
SAW	0.758			
CAW	0.818			
Work alienation (WA)		0.904	0.923	0.601
WA1	0.751			
WA2	0.828			
WA3	0.724			
WA4	0.718			
WA5	0.742			
WA6	0.826			
WA7	0.812			
WA8	0.788			
Turnover intentions (TI)		0.829	0.887	0.662
TI1	0.881			
TI2	0.797			
TI3	0.783			
TI4	0.789			

Source: The authors.

Table 2. Measurement Model: Discriminate Validity

	Fornell-Larcker criterion analysis				Heterotrait-Monotrait (HTMT) ratio		
	QWL	TI	WA		QWL	TI	WA
QWL	0.799			QWL			
TI	-0.575	0.814		TI	0.667		
WA	-0.604	0.621	0.775	WA	0.669	0.714	

Source: The authors.
Notes: Fornell-Larcker criterion: diagonal values represents square root of AVE and off-diagonal values represents inter-construct correlations.

Structural Model Assessment

Initially, the VIF (collinearity statistic) was computed for each predictor to detect the collinearity in the structural model. As shown in Table 3, collinearity was not an issue in this study as all the VIF values were lower than the threshold value of 3 (Hair et al., 2019).

Bootstrapping approach, suggested by Preacher and Hayes (2008), was followed for testing the mediating effect and other hypotheses. The results are shown in Table 4. In the first step, the significance of the direct effect of QWL on turnover intentions, excluding the mediator (work alienation), was checked. Results indicated that QWL had a significant negative effect on turnover intentions ($\beta = -0.577$; $p < 0.05$). Thus H1 was supported. In the next step, the direct and indirect effects were tested by including the mediator. It was found that work alienation significantly positively affected turnover intentions ($\beta = 0.432$, $p < 0.05$). This supported H2. Also, results depicted that work alienation partially mediated the relationship between QWL and turnover intentions as both the direct ($\beta = -0.314$, $p < 0.05$) and indirect effect ($\beta = -0.261$, $p < 0.05$) were found to be statistically significant (Figure 2). Thus, H3 was also supported. Additionally, the strength of mediation was determined through the calculation of VAF (variance accounted for). It depicts the proportion of indirect effect as compared to the total effect (Hair et al., 2014a). For the QWL-turnover intentions relationship via work alienation as a mediator, the value of VAF was reported to be 0.453 suggesting partial mediation.

Table 3. Collinearity Assessment

	Inner VIF values
QWL→ TI	1.575
QWL→ WA	1.000
WA→ TI	1.575

Table 4. Mediation Analysis

Procedure	Hypotheses	Path	Path coefficient	T statistic	p values	Decision
Step 1: Direct effect (without mediator)	H1	QWL→TI	-0.577	10.315	0	Supported
Step 2: Direct and indirect effect (with mediator)		QWL→TI	-0.314	4.144	0	
	H2	WA → TI	0.432	6.534	0	Supported
	H3	QWL→WA→ TI	-0.261	5.386	0	Supported

Source: The authors.

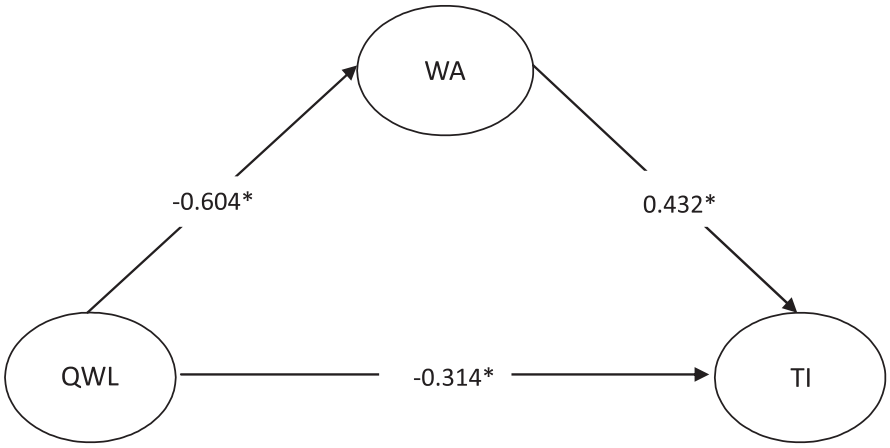

Figure 2. Structural Model (Path Coefficients).
Source: The authors.
Note: *p<0.05

Table 5 presents R^2 (coefficient of determination) and Q^2 (predictive relevance) values. R^2 refers to the in-sample explanatory power (Rigdon, 2012). Results indicated that QWL explained 36.5 per cent variance (R^2 = 0.365) in work alienation whereas 44.9 per cent variance (R^2 = 0.449) in turnover intentions was explained by QWL and work alienation. To estimate the predictive accuracy of the path model, Stone-Geisser Q^2 value was determined through the blindfolding procedure. Q^2 values must be greater than 0 for establishing the structural model's predictive accuracy (Hair et al., 2017a). In the study, Q^2 values for work alienation and turnover intentions were reported to be 0.212 and 0.287, respectively indicating adequate predictive relevance of the proposed model (Henseler et al., 2015).

Table 5. R^2 (Coefficient of Determination) and Q^2 (Predictive Relevance)

	R^2	Q^2
WA	0.365	0.212
TI	0.449	0.287

Source: The authors.

The f^2 (effect size) values are presented in Table 6. Following the guidelines of Cohen (1988), the effect size of the various constructs in the study was found to be small (0.113), medium (0.215), and large (0.575). Also, the value of SRMR (standardized root mean square residual) was found to be 0.054 which is below the suggested value of 0.10. This confirmed that the proposed model had an acceptable fit (Henseler et al., 2015).

Table 6. f^2 (Effect Size)

	WA	TI
QWL	0.575	0.113
WA		0.215

Source: The authors.

Discussion

In this study, a conceptual model explaining the effects of QWL and work alienation on turnover intentions among online food delivery boys was developed and tested. Findings indicated a significant negative effect of QWL on delivery boys' intention to leave online food delivery companies. Based on the Met Expectations theory, it can be deduced that the employees' perceptions of unsatisfactory QWL weaken their feelings of belongingness and attachment with the organization (Tarmizi, 2008). They develop pessimistic attitudes towards their jobs, fuelling their impressions of an unprosperous work experience. This leads to declining commitment levels among the staff towards their vocation and employing organization which, in turn, enhances their turnover intentions (Huang et al., 2007; Yusoff et al., 2015). Further, poor QWL makes employees emotionally dissatisfied and exhausted, where they perceive that they cannot get any appropriate opportunities for learning and recognition while being part of the current organization. Consequently, such displeasure with their organization enhances their propensity to seek job at another organization (Rahman et al., 2010).

Further, the results revealed that work alienation was significantly positively related to employees' turnover

intentions. Researchers have also noted the presence of a connection between negative workplace attitudes and withdrawal behaviours among employees (Taboli, 2015). Alienated employees suffer from detachment from themselves, others, and their jobs. They psychologically drift away from the positive feelings towards their job (Çiftci, 2021). They feel they are being disfavoured as their efforts at the workplace are not adequately recognized by their employers (Ceylan & Sulu, 2011). As a result, social distancing occurs, owing to their reduced communication and weak relations with their peers and superiors. Further, they feel cognitively isolated and exhausted from their work leading to decline in their motivation levels (Guo et al., 2021). This propels them to look for an escape from their work by leaving their present organizations (Banai et al., 2004; Du Plooy & Roodt, 2010).

In addition, the study reported that work alienation partially mediated the relationship between QWL and turnover intentions. According to Erdem (2014), if the QWL of employees is improved, then their tendency to experience work alienation will decline and they will become more efficient. In contrast, poor QWL hinders employees from the realization of their various respective needs causing feelings of helplessness and estrangement/disengagement among them (Efraty & Sirgy, 1990). Also, deplorable QWL augments employees' discernment of the presence of different psychological aspects of work alienation, namely isolation, powerlessness, and meaninglessness at the organization. In other words, unsatisfactory QWL leads to the development of feelings of work alienation among employees (Çetinkanat & Köstereliogl u, 2016; Huseyin, 2018). Alienated employees, in turn, tend to struggle more at their jobs as they become less satisfied, more demotivated, and unproductive. Their performance levels also suffer a setback. They feel they are not empowered enough to achieve their goals while working with the current organization. Their discontentment with the organization also rises, and they start entertaining thoughts of withdrawing from their jobs (Golden et al., 2008; Kanungo, 1979; Tummers et al., 2015). In addition, alienated employees also perceive that they are not able to obtain the psychological resources (like support, control over their job, and self-esteem) that they actually value from their current job. Consequently, they attempt to get such resources by leaving their present organization (Srutismara *et al*., 2018).

Over the past few years, soaring unemployment woes in India have pushed the youth towards such delivery jobs in the gig economy (Bose, 2019). For most Indian youth, food delivery jobs are the sole source of income. In such circumstances, the provision of poor QWL by the food delivery companies in the form of irregular and extreme working hours, minimal pay, absence of sick leaves, and inadequate facilities further add to the misery of delivery boys (Chintada, 2021). A study conducted by the Fairwork project has also affirmed that app-based companies, including Zomato and Swiggy, have one of the worst working conditions among other start-ups in India (Thaker, 2019). These deplorable working environments have caused physical (harsh weather conditions and injuries due to road accidents) as well as psychological distress (isolation, detachment, and dissatisfaction) to the delivery boys (Archana, 2020). As a result, these discontented and alienated delivery boys retaliate either by engaging in counterproductive work behaviours (stealing or damaging customers' food packets) or leaving their jobs. The gig economy has been reported to be prone to rotating attrition where the workforce feels no allegiance to their employers, and are always eager to switch their current jobs at the drop of hat in exchange for better jobs (Salve and Paliath, 2019). To conclude, online food delivery companies need to be concerned about the well-being of the delivery boys to retain them as it is linked with the satisfaction of their customers, performance, and success of their business (Rowe, 2020).

Theoretical Implications

The study, theoretically, serves as an addendum to previous research studies on QWL and turnover intentions conducted across various occupational settings. It provides an opportunity to supplement the existing literature by better understanding the effect of QWL on delivery boys' intentions to quit online food delivery companies. The present study, also, contributes to the research work concerning job attitudes having negative orientation such as work alienation in the context of a non-western nation like India. The extant literature has been focused on exploring the association between positive job attitudes (job satisfaction, organizational commitment, and job involvement) and employee's intention to quit an organization (Ahmad, 2018; Freund, 2005; Lin & Huang, 2021; Wickramasinghe & Wickramasinghe, 2011). This study, however, breaks that mould by examining and establishing the relationship between work alienation (negative job attitude) and turnover intentions amongst the Indian workforce. Also, the study makes a methodological contribution by employing contemporary data analysis and estimation technique i.e. PLS-SEM. In addition, the study extends the literature by substantiating work alienation as an intermediary construct between QWL and turnover intentions of food delivery boys. The results of the study, therefore, highlight the significance of improving the QWL of the workforce and regulating their feelings of work alienation to curb their intentions to leave the organization.

Managerial Implications

The present study also underscores the importance of the formation and application of such personnel management

strategies that can enhance the QWL of food delivery boys. On the basis of Met Expectations theory, it can be inferred that turnover intentions can be mitigated by fulfilling the expectations of delivery boys with respect to their QWL and related aspects. Therefore, management can develop and implement needs satisfaction programs that cater to the identification and fulfilment of the unsatisfied needs of the delivery boys causing poor QWL (Cheung & Tang, 2009). Also, social activity programs strengthening trust and ties between employers and the delivery boys can be devised (Ko, 2021). Further, intervention programs including periodic consultation sessions, opinion surveys, or interviews can be conducted to identify shortfalls in working conditions and the environment that adversely affect the delivery boys' perception regarding their QWL (Gümüş et al., 2021; Tongo, 2015). Such strategies will not only boost workforce job performance but also eventually augments organizational effectiveness. Furthermore, steps must be taken to ascertain and constructively manage feelings of work alienation among the delivery boys as these may result in dysfunctional outcomes for the organization in the forms of sabotage, disaffection, reduced work performance levels, and withdrawal (Singh & Randhawa, 2018; 2019; Vanderstukken & Caniëls, 2021). This calls for the management to adopt an efficacious approach of extending attentive work settings, creating reward programs, and administering psychological counselling sessions to dwindle the workforce's predisposition towards work alienation (Dajani & Mohamad, 2017; Li et al., 2016; Singh & Randhawa, 2021b).

Limitations and Suggestions for Future Research

Certain limitations of this study must be noted. First, the sample size of the study is limited to two online food delivery companies and is highly gender-biased, which may restrict the generalizability of the findings to other industrial and vocational populations. Another limitation is the lack of comparative studies of Zomato and Swiggy on selected constructs. Therefore, additional research with varying occupational groups and substantial sample sizes is required for the collection of more supplemental knowledge.

For further research, the impact of QWL on other behavioural work outcomes such as workplace deviance and organizational citizenship behaviour among food delivery boys can be examined and validated. Additionally, the mediating role of work alienation between QWL and such behavioural work outcomes can be explored. A comparative analysis of online food delivery companies such as Zomato and Swiggy on the associations specified in the presented model is another area ripe for further investigation.

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An Investigation of Work Stressors and Their Influence on the Organizational Commitment-Mediating Role of Work-Life Balance

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Abstract

Purpose

The present research paper examines the causes of work stress among health care workers and its impact on workplace commitment. It validates the mediating role of work-life balance during the pandemic.

Method

This research paper administrated a survey method with a structured questionnaire. There were 420 respondents interviewed in the health care sector belonging to doctors, nurses, and front line workers. The data collection frame adopted quota-based purpose sampling. After necessary validity and reliability checking, a pilot-tested questionnaire helped collect the empirical data from the identified respondents.

Results

The significant results of the paper identified six factors, namely personal life, workplace adaptability, workplace connectivity, work demand, workplace relations and workforce harassment, that causes workplace stress among health care workers in the pandemic period. It also investigated that personal life, work demand, and workplace harassment significantly affect workplace organisational commitment. The influences of workplace adaptability, work demand, workplace relation, and connectivity affect substantially work-life balance. While examining the mediating role of work-life balance between work stress and commitment, it understands that work-life balance is not mediated in personal life and harassment. However, work-life balance partly mediates between work demand and organisational commitment.

Originality

The study undertook the imitativeness to explore work stress factors and their effect on organisational commitment by invoking work-life balance as a mediator among health care workers, especially in a pandemic.

Keywords *Work Stress, Work-Life Balance, Organisational Commitment, Personal Life, Work Demand, Workplace Relation, Workplace Adaptability and Workplace Harassment.*

Introduction

Any activity that exerts specific psychological or physical demands on a person, anything that might disrupt their equilibrium, is referred to be stress. Reduced job satisfaction leads to unfavourable attitudes about work, family, and, eventually, self (Kushal, Gupta, Metha, & Singh, 2018). Employees are becoming stressed at work these days. Work overload, high demands, terrible working conditions, longer working hours, a lack of control (autonomy), or a lack of social support and incentives may contribute to stress (Oginska-Bulik, 2006). Healthcare jobs are assumed to be highly demanding. Physicians and nurses, in particular, endure stress due to their duty for other people's health and well-being, patients' behaviour (which can be demanding and hostile), complaints, and dealing with death, damage, or trauma. Sutherland and Cooper highlighted job demands, patient expectations, growing fear of assault during visits, worry over patient complaints, and conflicts between job obligations and role need as sources of stress in health care practitioners. Doctors also express dissatisfaction with a lack of control, support, advice, communication, arduous administrative work, insufficient resources, personnel shortages, and performance review.

Stress is caused by more than just the responsibilities and circumstances of the workplace. According to the modern

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definition, occupational stress causes by a mismatch between job demands and workers' characteristics (Oginska-Bulik,2006). Workplace stress defines as the physical and emotional response to or input from the workplace. Stress occurs most frequently when the work requirements are incompatible with the employees' existing talents. In addition, workplace stress refers to the environment in which they work and internal disputes among workers. They make every effort to complete the tasks that their superiors or employers want them to do in a reasonable period. According to Eddy, Heckenberg, and Wertheim, mental illness, anxiety, and depression are among the factors that influence occupational stress (Kent and Wright, 2016). Workplace stress is divided into two categories: work-related stress and non-work-related strain. When an employee has difficulty coping with the obligations and responsibilities they must carry out, work-related stress arises (Kerdpitak & Jermsittiparsert, 2020).

COVID-19 throws health care workers at danger on a physical, biological, and psychological level since they lack the essential resources to manage, reduce, and cope with the pandemic's severe and perhaps permanent repercussions. As a result of the symptoms of occupational risk and its psychological consequences, it might be classified as an occupational illness. Furthermore, the pandemic has severe emotional implications for health care professionals, which are closely related to their working environment. As a result, if their working circumstances are insufficient, they will jeopardise the health of their families, exacerbating the impact on their mental health. It's worth noting that certain studies have shown that biosafety training, proper infection control methods, personal protective equipment, and acknowledgement of their achievements at the institutional and government levels may provide a sense of security and desire to continue working.

Statement of the Problem

In today's world, the health care industry's working climate is highly competitive. The expansion of the health care system, the introduction of new technologically supportive health care systems, the development of completion, and the demand for market-driven health care services encourage the health care industry and professionals to provide hygienic and responsive services to patients. The Covid-19 epidemic is a pivotal point in human history that is still unfolding. Apart from the vast death toll and direct economic and health consequences, the pandemic has shown fractures in modern society, revealing worldwide economic disparities (Yancy 2020). Especially in the current pandemic scenario (COVID-19), the contribution and demand for health care services are critical for patients' economic and social well-being and the general public. In the current circumstances, health care provides a pivotal role and delivers essential services. The current job of health care providers is to care for people's lives rather than to provide medical therapy. However, numerous studies have focused on the involvement of the health care industry and its employees in the epidemic. However, only a few studies have sought to identify the personal impact on health professionals in the current circumstances and the influence on their total dedication. In the present pandemic scenario, this study is unusual. It investigates the sources of job stress and its impact on a commitment by looking at the mediating function of work-life balance among health care professionals.

Significance of the Study

Guidelines from other respiratory disorders were the initial set of precautions applied at the outset of the pandemic. The medical community came to comprehend the virus and put up suggestions for safety measures. However, because these safety standards were difficult to apply in specific work contexts, health care workers were at a higher risk of contracting the disease. There was also much overlap between at-risk sectors and those deemed 'key' and told to keep operating. Physical contact with coworkers, patients, social distance, or working-from-home options was frequently unavailable in these industries. Health care professionals are the first line of defence in the fight against the COVID-19 epidemic, which has produced a global disaster. Unfortunately, they confront poor working conditions due to a lack of biosafety equipment, infection control systems, recognition programmes and work incentives, and finally, patients' physical and psychological abuse and discrimination, all of which impact their mental health and work stress. Well-known work stressors and their consequences might appear as a work-life balance and a lack of dedication to work. The ongoing management of COVID 19 patients is complex due to a lack of information regarding the virus. This paper effort is unique because it elicits elements of job stress and their significant impact on work-life balance and dedication.

Literature overview

The workplace is a culture or society that promotes people's feelings of self-identity, belonging, value, and significance (Bae & Min, 2016). People's adverse reactions to excessive pressure or other demands at work refer to as workplace stress. As defined by the phrase above, workplace stress is stress caused not just by creating what an employee is required to accomplish established on occupation descriptions but also by the workplace environment. According to (Patwary & Rashid, 2016), employees can impact workplace stress in different ways. It can show a lack of motivation, illness, poor employee performance, illness, or absenteeism (BlancLapierre, Rousseau, & Parent, 2017). These are the symptoms or indicators that demonstrate how employees react to job stress and how workplace stress affects their performance. Non-work-related stress, such as financial difficulties, family connection breakdowns, and personal and family diseases, can all lead to an increase in

workplace stress. According to Foy, Dwyer Nafarrete, Hammoud, and Rockett (2019), workplace stress elements encompassed expectations, regulator, care, employment associations, role transformation, and values, all of which could influence employee stages to work stress. These characteristics are essential for the repercussions of disease, including high absenteeism, a high rate of turnover, and other issues.

Work-life balance, more particularly, is a conflict-free connection between professional and personal lives. (Schwartz et al., 2019) The unique demands and the varied duties that workers in these two domains link to this compromise of the two sectors (Sexton et al., 2017). Any mismatch between individual and specialised life balance and performance-emotional labour quit the work qualities (MacIntyre, Thivierge, & MacDonald, 1997). When workers have a healthy work-life balance, they are more likely to react positively to minimise workload within the organisation and establish an excellent organisational philosophy in which employees are not overworked. As a result, more work not saw as a burden. Aside from that, work-life balance may increase the efficacy and high enactment of an organisation's personnel (Shanafelt et al., 2015).

A person's attachment to and credentials with the organisation as a whole defines as employee commitment (Mowday, Porter and Steers 1982). According to Davis and Newstrom (2002), employee loyalty is the degree of attachment to the organisation and the willingness to continue interacting or working with it. Furthermore, commitment refers to a force that binds a person to a goal (social or non-social) and a course of action that will help them achieve that objective. Studies on the relationship between work-life quality and employee commitment have discovered a positive and significant correlation between the two factors (Karsch, Booske and Sainfort 2005; Huang et al. 2007; Normala 2010). Employee participation reveals work-related physiognomies such as role pressure, communiqué, and job spin through empirical research in health care (Chang and Chang 2009; Ho, Chang, Shih and Liang 2009). A high level of quality work-life acts as a centrifugal force, favourably affecting employees' feelings of belonging to the firm (Zhao, 2013)

The covid-19 outbreak has severely strained and, in many areas, overburdened health care systems, especially health care workers (Armocida et al., 2020; Xie et al., 2020). The WHO has emphasised the disproportionately high burden on health care professionals and has called for prompt action to address urgent needs and measures to save lives and prevent a severe impact on the physical and mental health of health care workers (WHO, 2020)

Research Gap

Only a few research have looked at the mediating effects of quality work-life (Cheung and Tang 2009, Totawar and Nambudiri 2014). However, no study has looked at the function of quality work-life as a mediator in the relationship between workplace empowerment and employee commitment in the health care industry (Cheung and Tang, 2009). These study articles fill a gap in the literature by looking at the function of work-life balance in mediating the relationship between work stress variables and organisational responsibility in the health care sector, particularly in light of the current pandemic (COVID) scenario.

Objectives

1. To Explore the factors that cause workplace stress among health care workers in a pandemic period
2. To describe the direct effect of workplace stress factors on organisational commitment among health care workers
3. To investigate the direct effect of work stress factors on the work-life balance of health care workers
4. To validate the effect of work-life balance on organisational commitment
5. To test the mediating role of work-life balance between work stress factors and organisational commitment among health care workers

Scope

The present study paper explored and investigated the factors that cause work stress among health care workers and their significant effect on work-life balance and organisational commitment. It also attempted to test the mediating product of a work-life balance between work stress factors and organisational commitment among health care workers by considering the particular pandemic period. The study covered the sample of respondents only from the health care sector belong to the categories of doctors, nursing staff, supporting staff and front line employees in the health care sector of selected government and private health care centres.

Aim and Hypotheses

To explore and validate the work stress factors on work-life balance and organisational commitment among health care workers based on the previous literature reviews and conceptual model. The following hypotheses were constituted and tested.

1. There is a significant effect of work stress factors on the work-life balance of health workers.
2. There is a significant direct effect of work-life balance on organisational commitment.
3. There is a significant effect of work stress factors on organisational commitment
4. There is a significant mediating effect of work-life balance between work stress factors and organisational commitment.

Method

The present cross-sectional study design is explorative cum descriptive patter. The data required for the study administer with health care sectors employees. The study employed survey sources to collect primary data. The sampling unit for the study covered the respondents belonging to doctors, nursing staff, supporting health care staff, and front line employees. The categories survey from government and private hospitals. The research paper utilised information both from secondary and primary sources. The sample size for the study estimate as 420. The estimated sample size was sourced through the quota cum purposive sampling method. Sample size calculated by undertaking the pilot survey of 80 respondents(20 doctors, 35 nursing staff, 15 supporting staff and ten front line staff) circulated, which comprises questions related to work stress and its effect on work, family, and organisation. The selected samples are on a judgmental basis. The responses measures on a 5 point item rating scale—the computed obtained responses for the mean value of 0.725. The obtained calculated mean value for its standard deviation (0.527)for the significance value of 5percent. The employed below-given formula to estimate the sample size

$$N = z^2 * \alpha^2 / (SE)^2 \quad = (1.96)^2 * (0.527)^2 / (0.05)^2 = 417.82 = 420$$

Participants

The study employed 420 health care workers on a quota basis, out of which 260 government health workers, 160 private health workers, 80 doctors, 130 nursing staff, 140 supporting staff, and 70 front-line employees. The obtained quota was approached conveniently based on their availability and identified their interest in the interaction. From the 420 respondents elicited their responses. From their responses, it was probed that 50percent are in the age group of 41 to 50. In terms of their sex background, among the participants of the study, 60percent are female. 33percent of study participants are professionals, and the remaining 19 percentage belong to below graduation, graduation, post-graduation and others. Regarding the participants, marital status, 73percent are married. 56percent of participants have 6 to 10 years of experience. 40percent of participants chosen this industry for passion, and 46 percentage chosen the career for ambition.

Table 1 Profile Background of Participants

Sl.No.	Attributes	Classification	No. of Respondents	Percentage to Total
1	Age	Less than 40	132	31
		41 to 50	210	50
		Above 50	78	19
2	Sex	Male	169	40
		Female	251	60
3	Educational Background	Below Graduation	42	10
		Graduation	78	19
		Post-Graduation	80	19
		Professionals	140	33
		Others	80	19
4	Marital Status	Married	306	73
		Single	114	27
5	Experience	Less than 5 Years	116	28
		6 to 10 Years	234	56
		Above 11 Years	70	17
6	Designation	Doctor	80	19
		Nursing Staff	130	31
		Supporting Staff	140	33
		Front line Employees	70	17
7	Type of Institute	Government	260	62
		Private	160	38
8	Reason to Choose the Career	Growth Prospect	140	33
		Suitability and Convenience	85	20
		Ambition	195	46
9	Reason for choosing the industry	Passion	170	40
		Career Perspective	152	36
		Service Attitude	98	23
Total			**420**	**100**

Source: Computed Primary data

Measures

The first portion of the questionnaire examined demographic factors such as participants' age, gender, educational background, marital status, and professional backgrounds such as experience, designation, kind of institution, the reason for choosing the job, and industry. A job stress scale, a work-life balance scale, and an organisational commitment scale were added in the questionnaire's second portion.

Work Stress Scale

Stanton et al. (2001) created the Stress in General scale (SIG), a self-report measure that evaluated felt workplace stress based on Lazarus and Folkman's (1984) definition and model of stress as applied to a work environment. After careful study, the items relevant to the health care sector were refined. In addition to that review of the job stress survey also helped to add some more variables that cover the aspects of work stress of health care professionals. The developed questionnaire has reformulated the items by considering the present situation of the pandemic. The produced items were validated for their content and criteria among 30 experts belong to the field of academic and health care. Based on their inputs, the language, the content was returned, and the final questionnaire was developed. There were 35 items developed and validated to measure the workplace stress of health workers.

Work-Life balance Scale

A fifteen items scale developed by Hayman (2005) developed a psychometric instrument to measure work-life balance was surveyed, and suitable items relevant to health care sectors, especially in given situations, were identified and refined through validity testing. Out of 15 items, seven items were included in the study.

Organisational commitment scale

An Eighteen item scale developed by Allen and Meyer's Organizational Commitment Scale was taken as a base, and in which seven items relevant to the health care sector was chosen. It was returned according to the current study requirements. After careful validation, the flow, language and content modifications were made and used for data collection.

Result and Discussions

Test of Reliability

The scale reliability for all the three categories of scales was done through pre-testing where in which 60 respondents were administrated for testing the internal consistency of items through the test-retest reliability method. It is observed all the 49 pooled things met the necessary internal consistency (Cronbach alpha value of 0.847), and also through scale if item deleted process, it is observed that no items crossed the internal consistency correlation value of more than 0.847, so all the 49 pooled items were considered for normal checking and data reduction process.

Test of Normality

To test the normality distribution of 49 reliable items, the results of K-S with Lilliefors correction and Shapiro-Wilk normality test through SPSS proven that the significant p-value for all the items are more than 0.05 and proven the normality of all things. Based on the existence of reliability and normality of 49 pooled items for work stress, work-life balance and organisational commitment were taken for data reduction process through exploratory factor analysis (EFA) with support of SPSS version 21.0.

Data Reduction Analysis

While employing the data reduction process through exploratory factor analysis through SPSS, it is observed that out of 49 reliable items, 34 items loaded with more than 0.7 reliability were retained for factor grouping analysis. The rest of the 15 items were deleted through the data reduction process.

Exploratory Factor Analysis

The second stage of exploratory factor analysis for factor grouping explored eight factors and in which six factors explored the factors cause for work stress, one factor represented work-life balance, and one factor denoted organisational commitment. The details of item loading in each factor in given below. (Table No.2)

Table 2 Summary of Exploratory Factor Analysis

Factor Label	Item Code	Item Description	Reliability	Factor Loading	Convergent Validity	Discriminant Validity	AVE
Personal Life	PLIFE1	I neglect personal needs because of work	.860	.906	0.883	0.812	0.78
	PLIFE2	Due to my personal life, I am in a better mood at work.	.860	.906			
	PLIFE3	Cos of my personal life, my career suffers.	.861	.895			
	PLIFE4	Work has taken a toll on my personal life.	.861	.889			
	PLIFE5	I miss my activities because of work	.860	.872			
	PLIF E6	I would feel guilty if I left this organi sation now.	.861	.865			
	PLIFE7	My personal life provides me with the vigour I need to do my job.	.861	.848			
Work Adaptability	WPADP1	Personal harassment in the form of hurtful words or actions has been dire cted towards me.	.860	.876	0.846	0.789	0.71
	WPADP2	I know how to go about completing my task.	.859	.875			
	WPADP3	At work, many groups want things from me that are difficult to mix.	.860	.857			
	WPADP4	My coworke rs will assist me if work becomes challenging.	.859	.838			
	WPADP5	I'm working on deadlines that I won 't be able to meet.	.860	.832			
	WPADP6	At work, I know what is expected of me exactly.	.862	.830			
	WPADP7	I have complete control over when I take a rest.	.859	.816			
Work place connecti vity	WPCON1	There is a rift or antagonism between coworkers.	.868	.838	0.8005	0.832	0.64
	WPCON2	I'm not able to take enough breaks.	.866	.838			
	WPCON3	I understand how my job contributes to the organis ation's broader goals.	.868	.788			
	WPCON4	I have a say in how I carry out my duties.	.867	.738			

Factor Label	Item Code	Item Description	Reliability	Factor Loading	Convergent Validity	Discriminant Validity	AVE
Work Demand	WDD1	I have to work very fast	.870	.832	0.807	0733	0.65
	WDD2	I have to put in a lot of effort.	.870	.806			
	WDD3	I have control o ver how quickly I work.	.871	.797			
	WDD4	I have the ability to choose what I do at work.	.869	.793			
Work Place Relationship	WR1	My line manager encourages me at work	.871	.912	0.881	0.791	0.77
	WR2	I can talk to my line manager about something at work that has irritated or angered me.	.870	.884			
	WR3	Workplace relationships are strained.	.870	.847			
Work-Life Balance	WLB2	I have some control over how things are done.	.871	.906	0.842	0.811	0.71
	WLB3	I have plenty of opportunities to challenge supervisors about workplace changes.	.870	.902			
	WLB1	My working time can be flexible	.871	.719			
Organisational Commitment	OC1	Due to my sense of duty to my organisation, I would not quit it right now.	.871	.902	0.847	0.821	0.72
	OC2	This organisation owes me a tremendous lot.	.872	.886			
	OC3	This organi sation deserves my loyalty	.872	.755			
Workplace Harassment	WPHAR1	I would feel more empowered to confront bullying if I was aware of it.	.872	.860	0.798	0.788	0.641
	WPHAR2	I would feel certain that if I reported bullying, it would be halted.	.872	.819			
	WPHAR3	I am subject to bullying at work	.870	.717			
Bartlett 's Test of Sphericity							
			0.782				
Approx. Chi -Square			**12588.12**				
df			**561**				
Sig.			**0.000**				
Cumulative Percentage of Variance (8 factors)			**77.014**				

Source: Computed Primary data

The loaded 34 out of 49 items The obtained KMO value is 0.782, which is more than 0.7, proven the sample adequacy for performing factor analysis. The obtained p significance value is 0.000 and which is less than0.05 permitted to perform factor analysis. From the table of the total variance, it is understood that 34 items are grouped under eight factors, which explains the total cumulative variance of 77.014 percentage. Further to that, the rotated component matrix loaded 34 items under eight significant factors, which are loaded with more than 0.5. Factor one is loaded with seven items with the convergent validity of 0.883, and it is labelled as factor 1 'personal life'. Factor 2 is labelled as 'work adaptability' loaded with seven items with a convergent validity of 0.84. Factor 3 loaded with four items named 'Workplace connectivity' with the convergent validity of 0.80. Factor 4 is labelled as 'Work Demand' with the loading of 4 items with the convergent validity of 0.807. The loading of 3 items with the convergent validity of 0.881 is termed as "Work Place Relationship". The factor 6 grouped with three items is named 'Work Life Balance' with the convergence value of 0.842. The factor 7 with the loading of 3 items with the convergence value of 0.847 is termed as organisational commitment. The last factor is termed as 'Work Place Harassment' with the loading of 3 items with the convergent loading value of 0.79.

The outcome of exploratory factor analysis six factors causes for work stress and one factor describe work-life balance, and one more factor depicts the organisational commitment. In order to validate the framed hypotheses of testing and validating the effect of work stress factors on work-life balance and organisational commitment and also the mediating role of work-life balance between work stress constructs and organisational commitment, the confirmatory factor analysis (CFA) was carried out.

Confirmatory Factor Analysis (CFA)

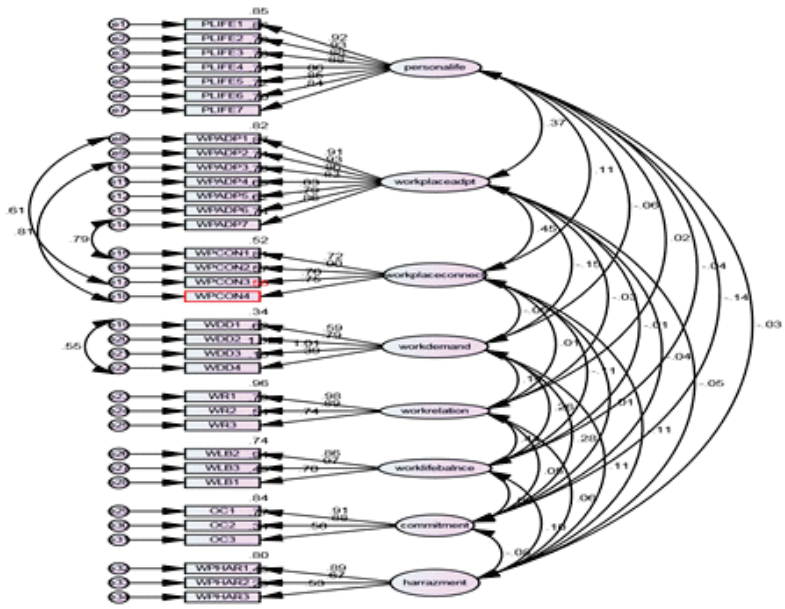
To validate the hypotheses related to the influence of work stress factors on work-life balance and organisational commitment as well as to test the mediating role of work-life balance, the confirmatory factor analysis was carried in two days, namely

1. Measurement Fit
2. Structural Equation Model

Measurement Fit Model

The Eight constructs identified in the exploratory factor analysis (EFA) was verified for model fit and convergence of items under constructs. All the eight constructs are pooled, and covariance effects are confirmed. The obtained fits, after incorporating necessary modification indices in the model, proven the model fit. The details are depicted in the below table.

Fig 1 -Measurement Fit



PLIFE:Personal Life WPADP: Work Adaptability WPCON:Work place connectivity WD:Work Demand WR:Work Place Relationship WLB:Work-Life Balance OC:Organisational Commitment WPHAR:Workplace Harassment

Table 3 Fit Indices

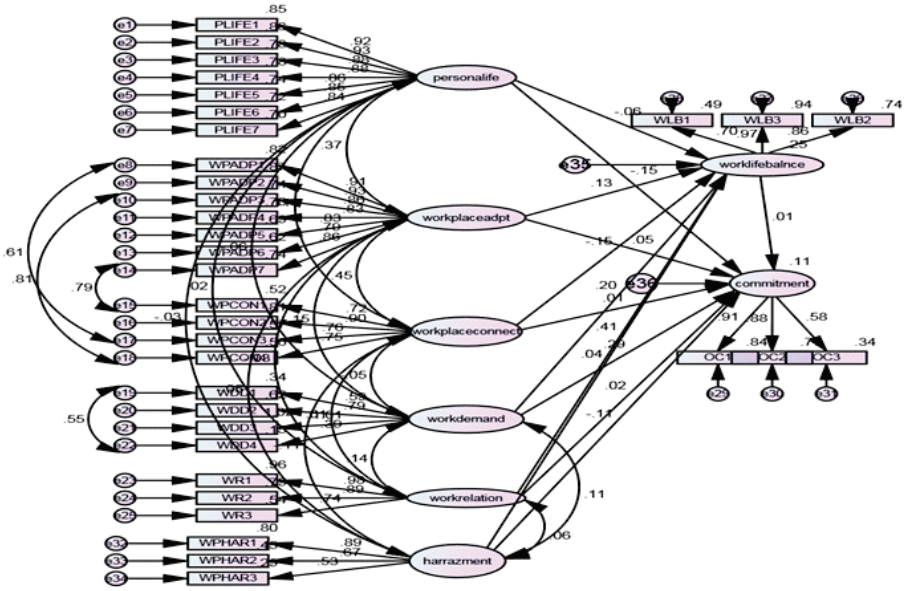
Statistics	Model Values	Recommended value for good fit[a]
χ^2	1907.461	
Probability level	0	≥ 0.05
χ^2/df	3.853	≤5.00
GFI	0.892	≥0. 9
AGFI	0.851	≥0. 9
NFI	0.919	≥0. 9
RFI	0.936	≥0. 9
TLI	0.941	≥0. 9
CFI	0.939	≥0. 9
RMR	0.033	≤0. 05
RMSEA	0.0673	≤0. 08

Source : (Davey & Savla, 2010; Hair et al. 2010; Tabachnick & Fidell, 2007)

Structural Equation Model

The structural equation model was developed after verifying the fit of 6 constructs for the proposed model. Since the model arrived at the necessary fit, the structural equation model was employed to validate the hypotheses of work stress factors on work-life balance and organisational commitment and test the mediating role of work-life balance between workplace stress factors and organisational commitment. While employing the structural equation model (SEM), the work stress factors, namely family life, workplace connectivity, workplace relationships, job demands, workplace harassment and workplace adaptability, were taken exogenous constructs. Work-life balance and organisational commitment were taken as endogenous constructs. The outcome of the hypotheses is given below.

Fig – 2- Structural Equation Model



PLIFE:Personal Life WPADP: Work Adaptability WPCON:Work place connectivity WD:Work Demand WR:Work Place Relationship WLB:Work-Life Balance OC:Organisational Commitment WPHAR:Workplace Harassment

Table 4 Hypothesis Testing

			Estimate	S.E.	C.R.	P	Label
Work-life balance	<---	persona life	-.047	.037	-1.273	.203	Not Supported
Work-life balance	<---	work place adpt	.102	.044	2.322	.020	Supported
Work-life balance	<---	work place connect	-.159	.055	-2.875	.004	Supported
Work-life balance	<---	work demand	.354	.082	4.326	***	Supported
Work-life balance	<---	work relation	.387	.045	8.572	***	Supported
Work-life balance	<---	harrazment	.062	.072	.858	.391	Not Supported
commitment	<---	Work-life balance	.006	.038	.172	.864	Not Supported
commitment	<---	personal life	-.073	.027	-2.736	.006	Supported
commitment	<---	harrazment	-.108	.052	-2.064	.039	Supported
commitment	<---	work relation	.011	.034	.316	.752	Not Supported
commitment	<---	work demand	.325	.061	5.296	***	Supported
commitment	<---	work place connect	.007	.040	.185	.853	Not Supported
commitment	<---	work place adpt	.027	.032	.844	.399	Not Supported

Source: Computed primary data

From the table, it is understood, there is a significant direct effect of workplace adaptability, connectivity, demand and workplace relation on work-life balance. It is also understood from the outcome there is no significant direct influence of workplace commitment. While testing the direct effect of work stress factors on organisational commitment, it is learnt that personal life, harassment and work demand have a significant impact on adherence. In order to test the mediation effect of work-life balance, the direct effects of work stress factors on commitment was considered. In this direct effect, significant factors like personal life, workplace harassment and work demand were tested for mediation. While introducing the work-life balance construct as a mediator, it is understood that work-life balance partly mediates between work demand as a work stress factor and organisational commitment and but at the same time, there is no mediation role of work-life balance between personal life and work harassment as work stress factors and organisational commitment.

Conclusion

Work stress has gained a lot of attention in present-day workplaces due to the changes in the workplace environment, work nature, and technology intervention. In addition to that, the changing demand pattern from the organisation in terms of work delivery and service expectation from customers the employees encounter work stress. It concerns the health sector; it is unavoidable for them to experience work stress due to their work nature, working time and workload. Especially in the present-day pandemic situation, the health care sector and its employees at every level encounter work stress due to the life caring activities they engage in rather than delivery treatments. By the endeavour, this present research paper, the causes for work stress in terms of pandemic scenario and its explored there are major six factors: work demand, personal life, workplace relation, connectivity, adaptability, and harassment invoke work stress. It also verifies that the influence on work-life balance and organisational commitment was explored and tested. This study also tested the mediation effect of work-life balance between work stress factors and organisational commitment. It is understood that the work-life balance partly mediates for work demand as one among the causes of work stress and organisational commitment.

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Role of Leadership Competencies on Virtual Team Effectiveness: Evidence based research among MNC's in India

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Abstract

This paper examined the dimensions of the Leadership Competencies (LC) and Virtual Team Effectiveness (VTE) among Multinational Corporations (MNC's) in India. Further, the research paper also highlighted the impact of leadership competencies on virtual team effectiveness. The research design of the study was descriptive and empirical. The impact of nineteen factors of leadership competencies and twenty two factors of virtual team effectiveness were studied. The study was conducted on a sample of 134 employees working in selected MNC's. The selected factors of the leadership competencies were reduced to four and selected factors affecting virtual team effectiveness were reduced to five dimensions respectively using Exploratory Factor Analysis (EFA). Pearson's Correlation and Regression Analysis was used for testing research hypothesis. The respondents of the study were employees from different MNC's. The leadership competencies were found to be positively related to virtual team effectiveness which means that if the team leader exhibits suitable competencies, then the functioning of virtual teams is significantly improved. The study has important implications for effective functioning in the virtual work environment of MNC's. The study presents an elementary framework to strategically plan the interventions in order to develop the suitable leadership competencies so as to improve the virtual teams effectiveness in terms of goal clarity, interdependence, trust, personal well being of team members and capacity utilization.

Keywords: *Leadership competencies; Virtual Team; Virtual team effectiveness; MNC's; COVID*

Introduction

Globalization and internationalization of demand, markets, and processes are resulting into incremental development and improvements hence constantly changing economies and workplaces according to the interest and strategic goals of business (Winter 2021). With globalization comes the requirement to coordinate and control the work across cross cultural boundaries. With breakthrough advancements in information technology and electronic communication taking place in the workplace, along with increased global competition and availability of skilled resources to address competitive requirements, organizations are pressurized to adapt virtual team structures. Furthermore, virtual teams are transforming from small project based teams to permanent structures having several team members from across the globe (Piccoli, Powell & Ives 2004; Bal & Teo 2000; Purvanova & Bono 2009). Current COVID-19 pandemic has further increased the dependence of Multinational Organizations on the effective functioning of virtual teams for the achievement of their strategic goals. Normal work pattern, mode of communication and team dynamics have been disrupted (Gardner and Matviak 2020). Hence, the requirement of fresh investigation to identify the role of leadership competencies and its impact on overall virtual team effectiveness becomes all the more significant.

Literature Review

Hambley et al (2007) define virtual leadership as ''a social influence process mediated by advanced information technologies to produce changes in attitudes, feelings, thinking, behaviour, and/or performance of individuals, groups, and/or organizations''. There are plenty of research studies and empirical theories to analyze the role of leadership capability in traditional team settings, but there is significant dearth of studies addressing the role of leadership in virtual teams (Bass, 1981).

Although abundant number of frameworks exist to examine the role of leadership effectiveness, majority of the theories can be categorized into one to three ideologies ie trait, behavioral or contingency theories (Stott, K., and Walker, 1995).

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Organizations which have effectively managed virtual teams are capable to facing the challenges offered by today's dynamic and complex business environment (Bosch & Petra, 2004) .

Bolden and Gosling (2006) depicted that leadership competencies require transformation from individualistic notions to more inclusive and relational perspectives. Moreover, focus should be given to the mechanism by which such approaches can contribute towards improved organizational performance in order to better understand the applications for which they are suited.

Review suggests that ethical issues may arise in the virtual work environment due to lack of interaction among team members and impact of social isolation (Kim, Emmett and Sikula, 2001).

Ziek (2014) postulated that if the virtual team leaders are able to effectively communicate the team members, the team will be able to effectively complete the tasks assigned to them. Higher level of behavioural competencies are required by virtual team leaders as compared to traditional team leaders because of the innate complexity of virtual team settings. This suggests that virtual team members will prefer leaders who exhibit multiple competencies. Competent leaders will have virtual teams that have good communication and role clarity (Kayworth & Leidner, 2002).

Majority of the studies lay emphasis on team design, trust, stages of trust formation, interpersonal relations, culture, conflicts, awards and recognitions, knowledge sharing in virtual teams (Bhat 2017).

Furst (1999) aimed to examine the factors resulting into virtual team effectiveness by proposing a research agenda. It was inferred that few research studies have studied the framework for identifying the effectiveness of virtual teams. Cordery and Soo (2008) aimed to determine the role of leadership and team climate in removing the hurdles associated with virtual team setting.

Research Gap

Review of Literature depicts that majority of the research has been conducted to identify the impact of leadership capability on traditional team performance. There is significant dearth of studies highlighting the impact of leadership competencies on virtual team effectiveness. Furthermore, COVID pandemic has created revolutionary changes in the overall functioning of multinational organizations. This in turn requires a more complex and interrelated set of competencies to be exhibited by the virtual team leaders to manage their teams effectively. It is with this background the research problem has been formulated.

Therefore, this study aims to explore the dimensions of leadership competencies required in managing the virtual teams effectively. The study also aims to highlight the impact of Leadership competencies on Virtual Team Effectiveness among selected MNC's.

Research Questions:

The research questions of the study are:

1. What are the dimensions of leadership competencies required in managing the virtual teams?
2. What are the dimensions for measuring the Virtual Team Effectiveness?
3. What is the impact of Leadership competencies on Virtual Team Effectiveness among MNC's?

Research Objectives:

The objectives of the study are:

1. To explore the dimensions of leadership competencies required in managing the virtual teams.
2. To determine the dimensions for measuring the Virtual Team Effectiveness.
3. To examine the impact of Leadership competencies on Virtual Team Effectiveness among MNC's.

Hypothesis:

The following hypothesis was framed on the basis of the main objective of the study:

***H_0*:** There is no significant impact of extracted dimensions of Leadership competencies on extracted dimensions of virtual team effectiveness.

***H_A*:** There is significant impact of extracted dimensions of Leadership competencies on extracted dimensions of virtual team effectiveness.

Research Variables:

Variables of the study are as follows:

Independent Variable: Leadership competencies

Dependent Variable: Virtual Team Effectiveness

Research Methodology

A. Research Design: The present study is empirical in nature based on descriptive research design to study and examine the impact of Leadership Competencies on Virtual Team Effectiveness among MNC's in India. It is a cross-sectional study, in which sample is collected from a population at one specific point in time.

B. Data Sources: The data has been collected by administering a questionnaire to a random sample of employees working with selected MNCs in India. The time duration for conduct of study was from June, 2021 to August, 2021. The questionnaire was framed in two sections. Section A consisted of statements related to Leadership Competencies in a 19-item scale that measured various determinants of competencies required by virtual teams leaders. It was assessed on a five point Likert scale. Section B consisted of statements related to the determinants used for measuring virtual team effectiveness. It was a 22 item scale and on 5 point scaling. Extensive review of literature has been undertaken to frame the items used in the scale. The research studies of Malhotra et al (2007), Markus et al (2000), Kollock (1996), Sarah Morrison-Smith (2020) were helpful in framing the construct. The secondary data was collected through research publications, journals, periodicals, and websites.

C. Sample Size: The study has been based on 150 employees working in the MNC's in India. Purposive sampling technique has been used to obtain the responses from the employees who have an experience of working in virtual teams and are currently working in virtual teams due to the COVID pandemic. One thirty four duly filled questionnaires were obtained.

D. Sample characteristics: Out of selected sample of 134 millennial employees, 57.46 percent (77) respondents were males and rest 42.53 percent (57) were males. Moreover, 41.74 percent (43) respondents were unmarried while remaining 58.25 percent (60) were married.

E. Data Analysis Techniques: In the current study, responses have been coded and analyzed using IBM SPSS 21. For analyzing data, statistical tools KMO and Bartlett's test of Sphericity, Exploratory Factor Analysis (EFA), Bi-variate Pearson's Correlation and Multiple Regression have been used. The statistical tests have been performed at 5 percent level of significance.

F. Exploratory Factor Analysis

Exploratory factor analysis (EFA) was applied to extract the latent factors of Leadership Competencies and Virtual Team Effectiveness among employees working in selected MNC's. The factor loadings were used to determine correlation between the selected variables of the study. A factor loading close to 1 signifies a strong correlation between the selected variables of the study, while a loading closer to zero signifies weak correlation. The factors were then rotated with the use of Varimax with Kaiser Normalization Rotation Method. Principal Component Analysis (PCA) method was applied for factor extraction and only those factors whose values were greater than 0.4, were interpreted for further study.

Result of KMO and Bartlett's Test and Communalities Score

In order to reduce the number of variables into few number of factors and also to determine the share of effect of the factors, factor analysis was employed. On the basis of the result of Kaiser-Meyer-Oklin (KMO) measures of sampling adequacy and Bartlett's Test of Sphericity (Homogeneity of Variance) appropriateness of the data for factor analysis was measured. The computation carried out reveals that internal cohesion of the data is suitable and the sample size is adequate for expression of the correlation between the research variables.

The results in table 1 and 2 demonstrate that the KMO measure of sampling adequacy was **0.687 (LC)** and **0.732 (VTE)** as it is above 0.6 in both the cases, so the explorative factor analysis operations may therefore be fulfilled. Bartlett's statistic was also significant at the level of p = 0.01, and the null hypothesis concerning the identical matrix is rejected, which revealed that adequate correlation existed between the research variables for performing the factor analysis in both the cases.

Table 1 LC : KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.687
Bartlett's Test of Sphericity	Approx. Chi-Square	277.882
	Df	171
	Sig.	.000

Source: Primary Data

Table 2 VTE: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.732
Bartlett's Test of Sphericity	Approx. Chi-Square	210.537
	Df	143
	Sig.	.000

Source: Primary Data

The results from table 3 and 4 of the factor analysis depicts that all the extracted communalities were good enough for both dependent as well as independent research variables and as their extraction values are big hence, both variables are fit for the factor solution. Factor loadings were applied to measure correlation between variables under study.

Table 3: LC Communalities

	Initial	Extraction
LC1: Allows people to go out of their way for good of the institution.	1.000	.934
LC2: Is able to enhance visibility of virtual members within the team and within the larger organization.	1.000	.639
LC3: Has an understanding of the project sequence and how individuals tasks fit in to the overall project.	1	.65
LC4: Information sharing about organization strategic intent with the team members on timely basis.	1.000	.649
LC5: Provides opportunities to exchange enough social information among team members to develop strong cohesion.	1.000	.818
LC6: Is aware and sensitive towards Team diversity such as nationality, language, or culture.	1.000	.718
LC7: Is empathetic towards the integration of personal life and work life demands of the virtual team members.	1.000	.526
LC8: Ability to utilize the technology available, and, when necessary, to educate the team on their proper uses.	1.000	.806
LC9: Must be able to recognize the achievements of team members as they are not there in person to get praise in front of coworkers.	1.000	.67
LC10: Must be able to carefully assess group dynamics and make adjustments based on the findings they gain through observation, listening and regular assessment of group dynamics.	1.000	.804
LC11: Is able to inculcate relationship building to foster the ability to form closer interpersonal relationships between members in the absence of physical interaction.	1.000	.639
LC12: Is able to make the members recognize the benefit of working together so that they can develop trust among themselves.	1.000	.845
LC13: Is Socially aware which includes knowledge about team members and their social environments.	1.000	.842
LC14: Should have good Communication skills and is able to listen and hear what cannot be seen.	1.000	.7
LC15: Should be able to deal with complexity and be prepared to make decisions that encompass multiple variables, considerable ambiguity, and evolving environments.	1.000	.642
LC16: Enables team members to self manage and self regulate their performance.	1.000	.829
LC17: Should have the ability to allocate time and resources efficiently to manage costs and keep the project on its tracks.	1.000	.872
LC18: Organizes training programs and counsels team members for career enhancement.	1.000	.713
LC19: Fosters participative management by encouraging involvement.	1.000	.837

Extraction Method: Principal Component Analysis.
Source: Primary data

Table 4: VTE Communalities		
	Initial	Extraction
VTE1:The team is aware of the organizational objectives and is committed to achieving them.	1.000	.729
VTE2: The team has the resources it needs to do the job and meet the targets it has been set.	1.000	.776
VTE3: Successes and failures are shared collectively.	1.000	.880
VTE4: All individuals are committed to perform to the best of their ability within the team.	1.000	.917
VTE5: Morale within the team is high.	1.000	.841
VTE6: There is a high level of trust in our team.	1.000	.625
VTE7: Conflict does not linger because people in this team are quick to resolve arguments.	1.000	.838
VTE8: We are rewarded as a team.	1.000	.759
VTE9: We have opportunities for personal development.	1.000	.821
VTE10: We have the resources and tools we need to meet our requirements.	1.000	.711
VTE11: Team members demonstrate excellence in their work habits.	1.000	.796
VTE12: The organization is concerned about our well being.	1.000	.817
VTE13: We have the skills we need to meet our requirements.	1.000	.704
VTE14: We have open, honest, direct communications.	1.000	.781
VTE15: We seek ways to support each other.	1.000	.845
VTE16: Individuals feel valued as members of the team.	1.000	.928
VTE17: We are rewarded fairly for our contributions.	1.000	.703
VTE18: Members of the team feel that they are fully utilized.	1.000	.810
VTE19: When things at work are stressful, we pull together as a team.	1.000	.845
VTE20: Team members are willing and able to share their knowledge and information, hence developing a sense of obligation.	1.000	.901
VTE21: There are clear objectives established for team activities.	1.000	.807
VTE22: Roles and responsibilities are clear.	1.000	.865

Extraction Method: Principal Component Analysis.
Source: Primary data

Results of Total Variance Explained for the Leadership Competencies (LC) and Virtual Team Effectiveness (VTE)

Table 5 depicts the total variance of **Leadership Competencies (LC),** the first four components (factors) in the initial solution have an Eigen values over 1, and it accounted for about **68.613** per cent of the observed variations considering the responses of a random selection of employees working in MNC's.

Similarly table 6 shows the total variance of **Virtual Team Effectiveness (VTE)**, five components (factor) in the initial solution have an Eigen values over 1, and it accounted for about **55.513** per cent of the observed variations considering the responses of employees.

Table 5: LC Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Component		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.187	43.091	43.091	8.187	43.091	43.091	1	8.187	43.091
2	2.109	11.098	54.189	2.109	11.098	54.189	2	2.109	11.098
3	1.558	8.198	62.387	1.558	8.198	62.387	3	1.558	8.198
4	1.183	6.226	68.613	1.183	6.226	68.613	4	1.183	6.226

Source: Primary data

Table 6: VTE Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Component		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.951	13.414	13.414	2.951	13.414	13.414	1	2.951	13.414
2	2.617	11.897	25.311	2.617	11.897	25.311	2	2.617	11.897
3	2.543	11.559	36.87	2.543	11.559	36.87	3	2.543	11.559
4	2.261	10.278	47.148	2.261	10.278	47.148	4	2.261	10.278
5	1.84	8.366	55.513	1.84	8.366	55.513	5	1.84	8.366

Source: Primary data

Extraction of latent factors of Leadership Competencies (LC) and Virtual Team Effectiveness (VTE) by using Principal Component Factor Analysis followed by Varimax Rotated Factor Analysis.

Table 7& 8: Results of Rotated Component Matrix

Table 7: LC results of Rotated Component Matrix[a]

	Component			
	1	2	3	4
LC1: Allows people to go out of their way for good of the institution.	0.923			
LC18: Organizes training programs and counsels team members for career enhancement.	0.772			
LC16: Enables team members to self manage and self regulate their performance.	0.634			
LC19: Fosters participative management by encouraging involvement.	0.679			
LC2: Is able to enhance visibility of virtual members within the team and within the larger organization.	.519			
LC3: Has an understanding of the project sequence and how individuals tasks fit in to the overall project.		0.774		
LC15: Should be able to deal with complexity and be prepared to make decisions that encompass multiple variables, considerable ambiguity, and evolving environments.		0.772		
LC4: Information sharing about organization strategic intent with the team members on timely basis.		0.695		
LC11: How often do you lose sleep due to late night log ins			0.825	
LC5: Provides opportunities to exchange enough social information among team members to develop strong cohesion.			0.751	
LC12: Is able to make the members recognize the benefit of working together so that they can develop trust among themselves.			0.728	
LC6: Is aware and sensitive towards Team diversity such as nationality, language, or culture.			0.686	
LC7: Is empathetic towards the integration of personal life and work life demands of the virtual team members.			0.674	
LC13: Is Socially aware which includes knowledge about team members and their social environments			0.643	
LC8: Ability to utilize the technology available, and, when necessary, to educate the team on their proper uses.				0.868
LC14: Should have good Communication skills and is able to listen and hear what cannot be seen.				0.765
LC10: Must be able to carefully assess group dynamics and make adjustments based on the findings they gain through observation, listening and regular assessment of group dynamics.				0.731
LC9: Must be able to recognize the achievements of team members as they are not there in person to get praise in front of coworkers.				0.652
LC17: Should have the ability to allocate time and resources efficiently to manage costs and keep the project on its tracks.				0.589
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 4 iterations.				

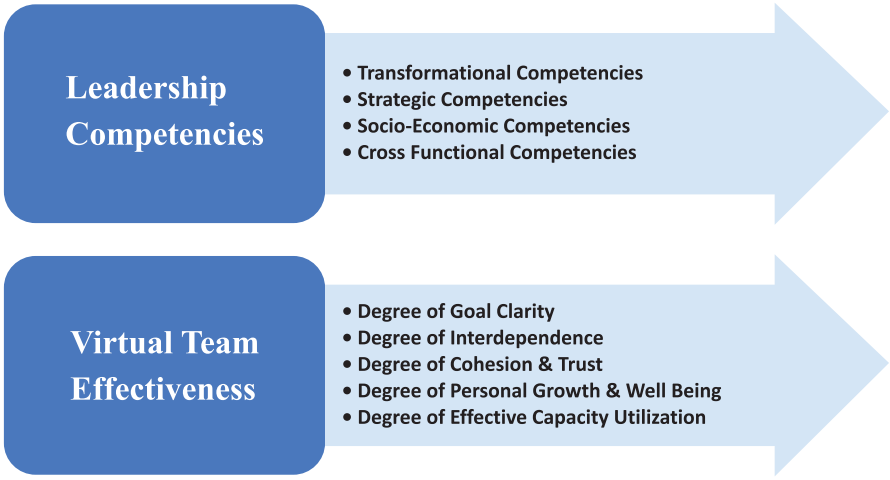
Source: Primary data

Table 8: Results of VTE Rotated Component Matrixa				
	Component			
	1	2	3	4
VTE1: The team is aware of the organizational objectives and is committed to achieving them.	.910			
VTE21: There are clear objectives established for team activities.	.895			
VTE22: Roles and responsibilities are clear.	.648			
VTE2: The team has the resources it needs to do the job and meet the targets it has been set.	.665			
VTE15: We seek ways to support each other.			.949	
VTE3: Successes and failures are shared collectively.		.874		
VTE19: When things at work are stressful, we pull together as a team.		.852		
VTE4: All individuals are committed to perform to the best of their ability within the team.		.741		
VTE20: Team members are willing and able to share their knowledge and information, hence developing a sense of obligation.		.629		
VTE16: Individuals feel valued as members of the team.			.845	
VTE5: Morale within the team is high.			.862	
VTE14: We have open, honest, direct communications.			.726	
VTE6: There is a high level of trust in our team.			.652	
VTE7: Conflict does not linger because people in this team are quick to resolve arguments.			.689	
VTE17: We are rewarded fairly for our contributions.				.835
VTE8: We are rewarded as a team.				.645
VTE12: The organization is concerned about our well being.				.691
VTE9: We have opportunities for personal development.				.532
VTE13: We have the skills we need to meet our requirements				
VTE10: We have the resources and tools we need to meet our requirements.				
VTE11: Team members demonstrate excellence in their work habits.				
VTE18: Members of the team feel that they are fully utilized.				
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Source: Primary data

Findings of EFA: In the present study, table 7 and 8 reveal the two variables namely Leadership Competencies (LC) and Virtual Team Effectiveness (VTE) and two different models derived by applying Exploratory Factor Analysis (EFA). For the independent variable, viz., Leadership Competencies (LC), four dimensions have been extracted. They were labeled as, **Transformational Competencies, Strategic Competencies, Socio-Economic Competencies and Cross Functional Competencies**. Similarly, for the dependent variable, viz., Virtual Team Effectiveness (VTE) in selected MNC's five latent variables have been extracted and named as **Degree of Goal Clarity, Degree of Interdependence, Degree of Cohesion & Trust, Degree of Personal Growth & Well Being of team members and Degree of Effective Capacity Utilization**.

Figure 1: Extracted dimensions of Leadership Competencies and Virtual Team Effectiveness



Source: Primary data

Hypothesis Testing

The stated hypothesis has been tested using Multiple Correlation and Multiple Regression Analysis.

H_0: There is no significant impact of extracted dimensions of Leadership competencies on extracted dimensions of virtual team effectiveness.

H_A: There is significant impact of extracted dimensions of Leadership competencies on extracted dimensions of virtual team effectiveness.

RELATIONSHIP BETWEEN LEADERSHIP COMPETENCIES (LC) AND VIRTUAL TEAM EFFECTIVENESS (VTE)

Multiple Correlation Analysis

Relationship between the Leadership Competencies (LC) and Virtual Team Effectiveness (VTE) has been determined by comparing only the significant values of Bivariate correlations.

Table 9: Correlations between dimensions of Leadership Competencies (LC) and Virtual Team Effectiveness (VTE)

Leadership Competencies ↓	Virtual Team Effectiveness →	Degree of Goal Clarity	Degree of Interdependence	Degree of Cohesion & Trust	Degree of Personal Growth & Well Being	Degree of Effective Capacity Utilization
Transformational Competencies	Pearson Correlation	.364**	0.087	.375**	.264**	0.426
	Sig. (2-tailed) N	0.004	0.435	0.007	0.032	0.009
Strategic Competencies	Pearson Correlation	.275**	0.031	0.015	0.098	0.025
	Sig. (2-tailed) N	0.04	0.75	0.538	0.332	0.426
Socio-Economic Competencies	Pearson Correlation	0.021	.401**	.384**	.547**	0.326
	Sig. (2-tailed) N	0.954	0.007	0.043	0.02	0.06
Cross Functional Competencies	Pearson Correlation	0.856	0.759	0.685	.586**	.427**
	Sig. (2-tailed) N	0.567	0.432	0.273	0.047	0.002

** Significant at 0.05 level of significance

Source: Primary source

The table 9 infers that significant positive correlation exists between Leadership Competencies (LC) and Virtual Team Effectiveness (VTE) among selected MNC's. Significant positive correlation exists among the following dimensions of leadership competencies and virtual team effectiveness:

- **Transformational Competencies** are significantly correlated with **Degree of Goal Clarity, Degree of Cohesion & Trust and Degree of Personal Growth & Well Being.**
- **Strategic Competencies** are significantly correlated with **Degree of Goal Clarity.**
- **Socio-Economic Competencies** are significantly correlated with **Degree of Interdependence, Degree of Cohesion & Trust and Degree of Personal Growth & Well Being.**
- **Cross Functional Competencies** are significantly correlated with **Degree of Personal Growth & Well Being and Degree of Effective Capacity Utilization.**

Multiple Regression Analysis

In order to determine the impact of Leadership Competencies (LC) on Virtual Team Effectiveness (VTE), Regression Analysis was applied relating each of the four extracted factors of Leadership Competencies as independent variables and the five variables of Virtual Team Effectiveness of selected MNC's as the dependent variable. On the basis of the above analysis, five statistically significant regression equation was constructed. The table 10 depicts the **results of regression analysis confirming rejection of null hypothesis and acceptance of alternative hypothesis** which means that fit has been observed between Leadership Competencies and Virtual Team Effectiveness in five regression model.

Table 10: Results of Regression analysis

Table 10.1: Degree of Goal Clarity

Dependent Variable	Independent Variable	R	R^2	Adjusted R^2	F Sig.	Unstandardised Coefficient (B)	t Sig.
Degree of Goal Clarity	Model	**0.293**	**0.088**	**0.074**	**0.013**	**2.856**	**0.000**
	Transformational Competencies					**0.263**	**0.003**
	Strategic Competencies					**0.271**	**0.023**
	Socio-Economic Competencies					-0.079	0.415
	Cross Functional Competencies					-0.063	0.673

Source: Primary source

Table 10.2: Degree of Interdependence

Dependent Variable	Independent Variable	R	R^2	Adjusted R^2	F Sig.	Unstandardised Coefficient (B)	t Sig.
Degree of Goal Inter-dependence	Model	**0.210**	**0.042**	**0.037**	**0.026**	**2.782**	**0.00**
	Transformational Competencies					-0.085	0.431
	Strategic Competencies					-0.027	0.732
	Socio-Economic Competencies					**0.252**	**0.004**
	Cross Functional Competencies					-0.084	0.854

Source: Primary source

Table 10.3: Degree of Cohesion & Trust

Dependent Variable	Independent Variable	R	R^2	Adjusted R^2	F Sig.	Unstandardised Coefficient (B)	t Sig.
Degree of Goal Cohesion & Trust	Model	**0.289**	**0.075**	**0.06**	**0.023**	**2.758**	**0.000**
	Transformational Competencies					**0.273**	**0.014**
	Strategic Competencies					-0.081	0.375
	Socio-Economic Competencies					**0.269**	**0.023**
	Cross Functional Competencies					-0.079	0.875

Source: Primary source

Table 10.4: Degree of Personal Growth & Well Being

Dependent Variable	Independent Variable	R	R^2	Adjusted R^2	F Sig.	Unstandardised Coefficient (B)	t Sig.
Degree of Goal Personal Growth & Well Being	Model	**0.351**	**0.093**	**0.081**	**0.002**	**3.421**	**0**
	Transformational Competencies					**0.293**	**0.004**
	Strategic Competencies					-0.085	0.482
	Socio-Economic Competencies					**0.285**	**0.01**
	Cross Functional Competencies					**0.269**	**0.025**

Source: Primary source

Table 10.5: Degree of Effective Capacity Utilization

Dependent Variable	Independent Variable	R	R^2	Adjusted R^2	F Sig.	Unstandardised Coefficient (B)	t Sig.
Degree of Effective Capacity Utilization	Model	**0.23**	**0.053**	**0.041**	**0.024**	**2.751**	**0.001**
	Transformational Competencies					-0.041	0.659
	Strategic Competencies					-0.053	0.742
	Socio-Economic Competencies					-0.065	0.641
	Cross Functional Competencies					**0.274**	**0.043**

Source: Primary source

R which denotes multiple correlation coefficient is the measure of the quality of forecasting of the dependent variable 'Virtual Team Effectiveness in selected MNC's in India'. The R^2 value is the proportion of variance in the components of Virtual Team Effectiveness that can be explained by the dimensions of Leadership Competencies. The ANOVA value depicts whether the regression model is a good fit for the data**.** The results of regression analysis are as follows:

- R^2 value of 0.088 in case of Degree of Goal Clarity (table 10.1) reveals that, on the basis of the responses given by employees, dimensions of Leadership Competencies contribute to 8.8% of Virtual Team Effectiveness as far as Degree of Goal Clarity is considered. Table predicts that two factors of Leadership Competencies (independent variable) i.e Transformational Competencies and Strategic Competencies significantly predict Degree of Goal Clarity in Virtual Team Effectiveness. The constructed regression equation is, therefore, a good fit of the data.

- R^2 value of 0.042 in case of Degree of Interdependence (table 10.2) reveals that, on the basis of the responses given by employees, dimensions of Leadership Competencies contribute to 4.2% of Virtual Team Effectiveness as far as Degree of Interdependence is considered. Table predicts that one dimension of Leadership Competencies (independent variable) i.e Socio-Economic Competencies significantly predict Degree of Interdependence in Virtual Team Effectiveness. The constructed regression equation is, therefore, a good fit of the data.

- R^2 value of 0.075 in case of Degree of Cohesion & Trust (table 10.3) reveals that, on the basis of the responses given by employees, dimensions of Leadership Competencies contribute to 7.5% of Virtual Team Effectiveness as far as Degree of Cohesion & Trust is considered. Table predicts that two dimensions of Leadership Competencies (independent variable) i.e Transformational Competencies and Socio-Economic Competencies significantly predict Degree of Cohesion & Trust in Virtual Team Effectiveness. The constructed regression equation is, therefore, a good fit of the data.

- R^2 value of 0.093 in case of Degree of Personal Well Being (table 10.4) reveals that, on the basis of the responses given by employees, dimensions of Leadership Competencies contribute to 9.3% of Virtual Team Effectiveness as far as Degree of Personal Well Being is considered. Table predicts that two dimensions of Leadership Competencies (independent variable) i.e Transformational Competencies and Socio-Economic Competencies significantly predict Degree of Personal Well Being in Virtual Team Effectiveness. The constructed regression equation is, therefore, a good fit of the data.

- R^2 value of 0.053 in case of Degree of Effective Capacity Utilization (table 10.5) reveals that, on the basis of the responses given by employees, dimensions of Leadership Competencies contribute to 5.3% of Virtual Team Effectiveness as far as Degree of Effective Capacity Utilization is considered. Table predicts that one factor of Leadership Competencies (independent variable) i.e Cross Functional Competencies significantly predict Degree of Cross Functional Competencies in Virtual Team Effectiveness. The constructed regression equation is, therefore, a good fit of the data.

Table depicts that factors of leadership competencies (independent variables) significantly predict the five dimensions of virtual team effectiveness accordingly. However, the equations were constructed by using un-standardized coefficients due to cross-sectional data. This means that there is significant impact of leadership competencies on virtual team effectiveness of selected MNC's. The significant regression equation is as follows:

- $\mathbf{VTE_{(Goal\ Clarity)} = 2.856 + (0.263)\ LC_{(TC)} + (0.271)\ LC_{(SC)} - (0.079)\ LC_{(SEC)} - (0.063) LC_{(CFC)}}$
- $\mathbf{VTE_{(Interdependence)} = 2.782 - (0.085)\ LC_{(TC)} - (0.027)\ LC_{(SC)} + (0.252)\ LC_{(SEC)} - (0.084) LC_{(CFC)}}$
- $\mathbf{VTE_{(Cohesion)} = 2.758 + (0.273)\ LC_{(TC)} - (0.081)\ LC_{(SC)} + (0.269)\ LC_{(SEC)} - (0.079) LC_{(CFC)}}$
- $\mathbf{VTE_{(Personal\ Well\ Being)} = 3.421 + (0.293)\ LC_{(TC)} - (0.085)\ LC_{(SC)} + (0.285)\ LC_{(SEC)} + (0.269) LC_{(CFC)}}$
- $\mathbf{VTE_{(Effective\ Capacity\ U)} = 2.751 - (0.041)\ LC_{(TC)} - (0.053)\ LC_{(SC)} - (0.065)\ LC_{(SEC)} + (0.274) LC_{(CFC)}}$

Where,

$\mathbf{VTE_{(Goal\ Clarity)}}$ stands for virtual team effectiveness derived from degree of goal clarity.

$\mathbf{VTE_{(Interdependence)}}$ stands for virtual team effectiveness derived from degree of interdependence.

$VTE_{(Cohesion)}$ stands for virtual team effectiveness derived from degree of cohesion & trust.

$VTE_{(Personal\ Well\ Being)}$ stands for virtual team effectiveness derived from degree of personal well being.

$VTE_{(Effective\ Capacity\ U)}$ stands for virtual team effectiveness derived from degree of effective capacity utilization.

$LC_{(TC)}$ stands for Transformational Leadership Competency.

$LC_{(SC)}$ stands for Social Competency.

$LC_{(SEC)}$) stands for Socio Economic Competency.

$LC_{(CFC)}$ stands for Cross Functional Competency.

Hence, it is evident from the study that if virtual leaders possess suitable leadership competencies then virtual team effectiveness increases.

Analysis and Discussion

The explorative analysis of the study is broadly divided into parts: Independent Factor, viz., Leadership Competencies and Dependent Factor, viz., virtual team effectiveness among MNC's. In this study, four dimensions of Leadership Competencies and five dimensions of virtual team effectiveness were extracted using Exploratory Factor Analysis (EFA). In order to analyze and interpret the impact of *identified dimensions of* leadership competencies on identified dimensions of virtual team effectiveness among MNC's, Pearson's multiple correlation techniques and Multiple Regression analysis have been applied. A significance value of less than 0.05 indicates that there exists a significant relationship between the variables under study.

- The study depicts that transformational leadership competencies enables team members to self manage and self regulate their performance thereby fostering participative management. This in turn results in increased degree of goal clarity, cohesion & trust followed by personal growth & well being among virtual team members.
- The study reveals that strategic leadership competencies enables the team leader's to deal with business complications and be prepared to make strategies that encompass multiple variables. This in turn results in greater goal clarity as far as virtual team effectiveness is considered.
- The study infers that presence of socio-economic competencies enables the leader to form closer interpersonal relationships between members in the lack of physical interaction. This in turn improves virtual team effectiveness by increased degree of Interdependence, cohesion & trust followed by personal growth & well being among team members.
- Furthermore, the study analyzes that cross-functional competencies enables the virtual leaders to conscientiously assess group dynamics and make adaptations based on the findings they gain through observation, listening and assessment. This in turn results in increased degree of Personal Growth & Well Being and effective capacity utilization among team members for effective virtual team functioning.

Managerial Implications

Multinationals and their supply chains have been heavily disrupted by the COVID 19 pandemic, with human resources facing adverse impacts. The findings extracted from the current study may prove to be particularly beneficial in the formulation and implementation of various interventions and training programmes to ensure a human centered recovery. The MNC'S will get an idea on how to assist the virtual team leaders in developing their core competencies for effectively managing the virtual teams. Human Resource Professionals should understand the problems that deviate the virtual teams from achieving their goals effectively. This understanding will enable the managers to formulate suitable strategies to select and develop the extracted leadership competencies resulting into increased virtual team effectiveness. This would enable the organization in formulating best practices for developing suitable behavior in virtual work environment. This will further benefit the multinational organizations in achieving their strategic goals and objectives on time which in turn results in the attainment of overall vision and mission.

Conclusion

The study was conducted to investigate the relationship between leadership competencies and virtual team effectiveness. The factors extracted by applying exploratory factor analyses for leadership competencies were labeled as *Transformational Competencies, Strategic Competencies, Socio-Economic Competencies and Cross Functional Competencies.* Similarly, for Virtual Team Effectiveness (VTE) in selected MNC's five latent factors have been extracted and named as *Degree of Goal Clarity, Degree of Interdependence, Degree of Cohesion & Trust, Degree of Personal Growth & Well Being of team members and Degree of Effective Capacity Utilization.* Further, the results of regression analysis showed that leadership competencies have significant impact on virtual team effectiveness of MNC's.

The study depicts that suitable competencies possessed by the team leader significantly increases the goal clarity, cohesion & trust among the virtual team members. Furthermore, it encourages personal growth & well being followed by participative management in the organization.

The findings of the study hold relevant to the current pandemic

as well where due to COVID protocols MNC's are opting for Work From Home culture for the safety and well being of their employees. Under such situation, the role of virtual leadership competencies in managing virtual teams becomes all the more significant. The results offer that the presence of suitable leadership skills foster's the ability to create closer interpersonal relationships among members in the absence of physical interaction. This in turn results into timely execution and implementation of business strategies.

Limitations and Scope for future research

The study is limited in nature because other factors contributing to virtual team effectiveness could not be measured. Small sample size was also the limitation due to which results of the study cannot be generalized. Studies which larger sample size from diverse cultures, regions and nationalities should be conducted in future to identify the role of leadership competencies in the effectiveness of cross cultural virtual teams.

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On Quantifying the extent of Tourism Development: A Case Study of Tripura of India

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Abstract

The entire northeastern locale of India has tremendous tourism plausibility but still miles to go to reach appropriate anticipation. This paper is an endeavour to look at the current status of tourism development in Tripura and Northeast based on some primary and secondary sources of evidences. The study reveals that arrival of foreign tourist was maximum in the years 2017 and 2018. The study also reveals that the state of Tripura has a lot of potentialities for tourism development. The installation of a broad gauge railway line improves transportation connectivity and helps to improve the overall performance of tourism in Tripura. The comprehensive evaluation of tourism performance placed the state of Tripura in a rating of "Good" from the 2017 onwards. The year 2016 has been earmarked for transforming the state from a: Fair" rating to a "Good" rating. Tripura tourism sector show almost a continuous improvement in the field of performance except in the years 2014-15 and 2015-16. The downfall in the years 2014-15 and 2015-16 can be attributed to the malfunctioning of meter-gauge railway line due to construction of a broad gauge railway line. The study recommended the public-private participation as an effective mechanism to undertake the strategy of marketing, maintenance of the spots, security of the tourist, opening of more tourist lodges and for continuous monitoring for sustainable development of tourism industry in Tripura.

Key Words: *Tourism, Potentiality, Marketing, Public-private participation, Tourism Indices, Performance Evaluation*

Introduction

Tourism has received to be the major division of financial activities around the world, covering a wide runs of endeavours, ranges and partners. It is one of the biggest and speediest developing businesses in the world (Singh, 2008). It is proceeding to develop and the creating economies like India are moreover encountering an expanded request for travel. Encompassed in assorted social and physical assets, India has each possibility to be a brilliant star within the world tourism outline (Ezhil. S. Raji, 2009). But, tourism has not however created in India as anticipated. India is mind-blowing in her common excellence. Too modernized in India, characterised by higher and progressed instructive education, progressed restorative care offices, exceptionally appealing markets for the remote commerce houses etc are a few reasons for which the tourism industry in India is of awesome significance. Huge numbers of foreign visitors come each year to India for these reasons (Praveen Sethi, 1999).

India can become a hub of tourism for foreign tourists. However, for sustained development of the tourism sector, continuous evaluation and monitoring of the performance of the sector are inevitable. For a comprehensive evaluation of tourist destination performance and competitiveness, scholars have undertaken destination performance analysis incorporating socio-economic and environmental variables (Wenbin, 2018; Zhang et al, 2011). Most of these studies focused on economic benefits using simple economic variables and a few have considered environmental quality. Wenbin (2018) brought about the issue of sustainability into the methodology of destination performance evaluation and tried to introduce a completely analytical approach to performance analysis. The 4E dimensions introduced by him are perceived to be relevant in India as well as the northeastern case. So, the present study considered his work as a pioneer although different indicators are used to represent dimensions value.

The state of Tripura, a part of the northeastern locale of India has colossal tourism potential; the tourism industry in this region is still miles to go to misuse the correct possibilities. The state Tripura is best known for its special common magnificence with greenery and fauna, verifiable landmarks, pioneer middle, tea gardens and its colourful cultural

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celebrations. All these can make the portion one of the finest goals of the sightseers. The tourism in this portion is primarily based on Natural life, Tea tourism, Authentic Landmarks Ethnic social heritages etc. Subsequently, natural parks and sanctuaries, rivers, lakes, warm water springs, woodlands, wildlife, are the central components of traveller fascination within the state. The full tourism possibilities of this portion can be assembled beneath the categories - Natural life, Nature Tourism, Tea tourism, Eco-Tourism, Social Tourism, Experience Tourism etc (Bhattacharya P, 2008).

Recently, the central government of India, as well as the state government of Tripura, is exceptionally much idealistic to create this portion alongside the rest portion of India within the point of view of tourism advancement. The state has its possess possibility for the tourism advancement being the locale is associated with southern Asia but there are a few issues exist like transportation and communication problem which are capable for shaky development of tourism. But during the year 2016 Indian railways connected Tripura within their network through broad gauge railways line.

Therefore, the present study is an endeavour to highlight the recent trend of tourism in terms of tourist attendance and to assess the performance of tourism in Tripura through developing a comprehensive Tourist Destination Performance Evaluation Index (TDPEI).

Statement of Problem

It is well established that India's most foreign exchange earnings are generated from the tourism sector and the government of India has been trying to prepare all the states of the country in such a manner that it can satisfy the demand of the tourist under the banner of 'Incredible India'. The state of Tripura adjacent to Bangladesh has a huge potentiality to attract tourists because of having different historical monuments and temples. For sustainable tourism of India, it is the right choice to review the performance of tourism of all the states continuously and to adopt appropriate strategy accordingly. It has been seen that the research work is lacking in the sphere of performance evaluation in the northeastern region under any comprehensive structural framework. Therefore an attempt has been made here in to review the performance of Tripura tourism with the help of formulating Tourism Indices using some parameters.

Research Questions and Objectives

Following research questions are to be answered through the study:

i. What is the present state of tourism in the state of Tripura and others northeastern states?

ii. Is there a positive and satisfactory growth of tourist, both domestic and foreign during the recent times?

iii. How depicts the comparative picture of tourist growth among the northeastern states?

iv. What are the important tourist spots, their plausibility and shortcoming, available in Tripura?

v. What could be the rating of Tripura tourism sector in a comprehensive multidimensional rating scale?

The broad objective of the study is to evaluate the performance of the tourism sector of the state of Tripura. The specific objectives are set as under:

I. Assert a tourism development comparison between Tripura and the Northeastern region.

II. Explore the attractive tourist spots of the state of Tripura-their plausibility and shortcoming.

III. Assess comprehensively the overall performance of Tourism in the state of Tripura by developing a Tourism Destination Performance Evaluation (TDPE) Index.

Research Methodology

This is an empirical study that uses both primary and secondary data. Primary data were gathered by enumerator observations, while secondary data were collected from various governmental and organizational reports. The field survey was conducted during the year 2019-20 and required secondary data collected from various data sources like Indian Tourism Statistics, Tripura Tourism Development Corporation, Economic Review, 2016-17, 2017-18 2018-19, to make Tourism Indices. Due to the non-availability of secondary data, the study used only the period from 2010-11 to 2018-19. We ignored the current two years of 2019-20 and 2020-21 because of non-availability data and as well as the effect of the Corona Pandemic.

To examine the trend of the presence of domestic and foreign tourists in Tripura over the study period, the data have been collected from Indian Tourism Statistics 2018-19. data related to the potentiality of tourist spots under Tripura have been collected by the investigator applying a snowball sampling method. To analyse the performance of Tourism development in Tripura, an Index is developed which has been explained in an appropriate place.

The Trend of Tourism in Tripura

Table 1: Highlight of Tripura Tourism

Year	Domestic Tourist	Foreign Tourist	Revenue (in lakhs)
210-11	320931	4763	105.68
2011-12	354006	5290	164.58
2012-13	359731	6550	184.45
2013-14	358625	7817	169.88
2014-15	359995	15376	189.27
2015-16	361581	29086	203.47
2016-17	363828	35619	207.16
2017-18	403394	80094	300.99
2018-19	416860	112955	345.73

Source: Economic Survey 2019-20, Tripura

It is observed from the table-1 that the state has been visited both by domestic and foreign tourists with a significant number over the years. During the study period, no significant variation was observed in the inflow of domestic tourists but in the early years of the study period, the foreign tourist inflows were not significant although, in the latter part, their number increases significantly. The revenue earned from the tourist increased over the years.

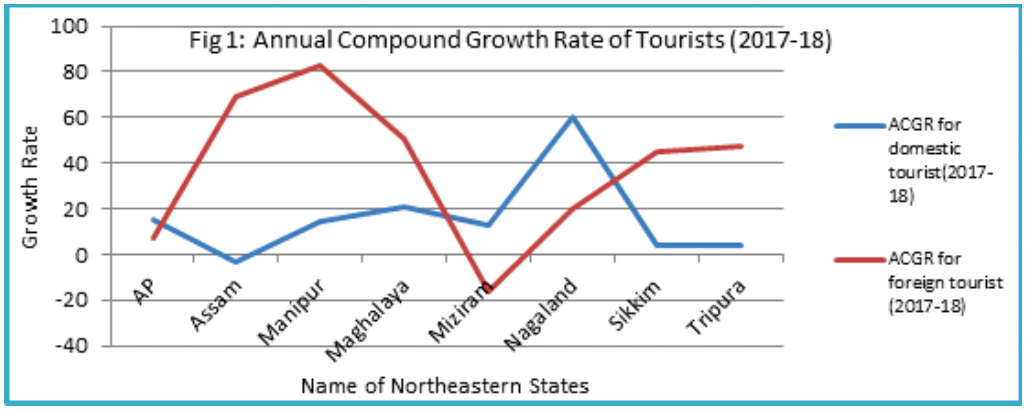
The current trend in the arrival of domestic and foreign tourists to the northeastern states is showcased using the following table (Table 2). The data shows that foreign visitors visiting various northeastern states were very less in numbers in comparison to domestic tourists during 2017-18. Tripura is recorded for the highest number of foreign tourists in both the years, followed by Sikkim, Assam and respectively. The state of Mizoram, on the other hand, has the lowest influx of foreign tourists in both the years 2017 and 2018. Domestic tourists were the highest in Sikkim for both the years followed by Assam and Arunachal Pradesh respectively. The state-wise detail is shown in the table-2.

Table 2: Domestic and Foreign Tourists Inflow to Northeastern States (2017-18)

States	2017		2018		Growth Rate	
	Domestic	Foreign	Domestic	Foreign	Domestic	Foreign
Arunachal	444005	7147	512436	7653	15.41	7.08
Assam	6052667	21760	5856282	36846	-3.24	69.33
Manipur	152454	3497	176109	6391	14.76	82.76
Maghalaya	990856	12051	1198240	18114	20.94	50.31
Miziram	67772	1155	76551	967	12.95	-16.28
Nagaland	63362	4166	101588	5010	60.33	20.26
Sikkim	1375854	49111	1426127	71172	3.65	44.92
Tripura	398669	69899	414388	102861	3.94	47.16

Source: Indian Tourism Statistics, 2019

However, the nature of growth of domestic and foreign tourists is recognised as quite unpredictable and dissimilar among the states (Table-2 & Figure-1) which gives rise to the issues of statutory law order situation, infrastructure and other socio-economic constraints.



Source: Indian Tourism Statistics, 2019

Important Tourist Spots in Tripura

The state of Tripura has a lot of potentialities for tourism development because of its historical significance and also a geographical advantage; its connection with South-East Asian countries. A few of the existing tourist hubs are highlighted below.

The Ujayanta Palace: Maharaja Radhe Kishore Manikya Bahadur erected the palace in 1901 in the centre of Agartala, the state capital of Tripura. The interiors of the palace are lavishly decorated with a wonderful tiled floor, a charmingly carved oak ceiling, and exquisitely made doors. It is illuminated at night, making it a striking landmark.

Chaturdashi Devta Temple (Temple of the 14 Gods): The temple is about 6 kilometres from Agartala city. The ancient custom of worshipping the 14 gods who have graced this spot is steeped in legend and history.

Tripura Sundari Temple: The Tripura Sundari Temple, popularly known as Matabari, is a major tourist site in Tripura, located near Udaipur, 56 kilometres from Agartala. The temple is considered one of the Hindu pilgrimage's 51 peeths (holy locations). The temple is connected to a pond known as Kalyansagar Pond, which has various fish and tortoises and is utilised by devotees of Mata for various puja purposes.

Neermahal: The Neermahal is located 22 kilometres from Agartala in Melaghar. It is situated within Rudrasagar Lake, which may be reached by chartered boats. The Neermahal was created by Raja Birbikram Kishore Manikya in the year 1930 for resting with his family; it took nine years to finish the mahal. Throughout the year, a large number of foreign tourists go to the area to partake in the horrible entertainment. The Information, Cultural, Affairs, and Tourism Department organise a boat race on Rudrasagar Lake every year.

Trishna Wildlife Sanctuary: Indian residential and migratory birds are the great attraction of tourists; the park is situated 95 km away from Agartala. The park covers an expanse of 194 sq km and is home to valuable trees like Segun, Kanak, Gargan etc,.

Mahamuni: This temple is famous for Buddist Pagoda, 134 km distance away from Agartala. The temple draws Buddist pilgrims from the country of Thailand, Myanmar and Srilanka, especially during the Mahamuni festival.

Unakoti: Unukoti is known for its 7-9th century stone and rock-carved images, which are found in the Kalishhahar subdivision, 178 kilometres from Agartala. The worship of Shiv-Shakti is a long-standing tradition in Tripura, as evidenced by the 30 foot high Shiva head with its embroidered hat, which is part of one of the country's greatest bas-reliefs at Unakoti. A large numbers of tourists visit this place because of its historical significance.

Kamalasagar Kali Temple: Originally, Maharaja Dhanya Manikya erected this Temple in the 14th century in Kamalasagar, in the Bishalgarh subdivision, 28 kilometres from Agartala. Kasba is the name of the place where the temple is located, which is located along the international border with Bangladesh. The government is currently taking initiatives to promote rural tourism in the area surrounding the shrine. The site is popular because of its international border with Bangladesh. People come to pay their respects to Kali Mata as well as enjoy the border entertainment. Both governments have opened

marketplaces near the border, allowing tourists to buy things from the market and have a taste of the other country by obtaining permission from Border Security Force officers. Standing near the shrine, one can observe the Bangladesh railway station as well as train traffic.

Conceptual and Analytical Framework to Develop Tourism Indices

- **Tourism Destination Performance Evaluation (TDPE)**: The performance of a tourist destination is the outcome of the initiatives taken for the development of tourism. Performance depends upon many factors and hence a multidimensional approach is needed to assess the performance of tourist destinations.

- **Range Standardization Method:** This method has widely been used by academicians to standardize variables. The method allows variables to have different mean and variance but equal ranges. In this method, variables are converted such a way that it contains minimum value 0 and maximum value 1.

- Entropy weight determination: Entropy can be used to determine the weight of criteria when the decision-maker has conflicting views on the values of weight. As such entropy weight is a parameter that describes how many different alternatives approaches one another in respect to certain criteria. The weight calculated by this method is called objective weight.

- **Evaluation Matrix**: to evaluate the performance of tourism destinations the range of scores is divided to produce four different qualitative layers. Since the scores range between 0 to 1, four equal layers are created as follows.

Table-3: Evaluation matrix

Evaluation layer			
0-0.25	0.26-0.50	0.51-0.75	0.76-1.0
Poor	Fair	Good	Excellent

- **4E Analytical Framework**

After reviewing the existing literature on performance analysis, particularly there pros and cons this study attempt to develop a mathematical framework to evaluate the performance of tourist destination applying the 4E evaluation framework following the pioneer works of Wenbin Luo (2018). This method differs from the methods so far used but the mainstream literature but it shares some common features. The components of the proposed 4E framework are:

I. **Economy:** It refers to the extent of contribution by the tourism sector to regional economic development. Indicators that are taken into consideration to measure this performance include percentage contribution of the tourism sector to the GDP, growth rate of tourism output.

II. **Efficiency:** The efficiency of a tourist destination can be measured in terms of ratio output to input. There are two approaches in the literature to measure the efficiency of the target variable, namely parametric and non-parametric approaches. In this study, a parametric approach is made to develop an efficiency index considering both the input and output sides. On the input side, we consider the average number of tourists in the destination (numbers/km2) and the number of tourists per travel agency/tourist lodge. On the output side tourism revenue per capita is considered as an index for measuring tourism efficiency.

III. **Effectiveness:** Effectiveness is the qualitative factor that is to be understood from the point of view of reaching entities development goal. This can be understood from the success ratio in various interventions. The proxies used herein to measure the index is the number of travel agencies, number of tourist lodge, number of travel agency employees, number of scenic spots, number of complaints and average stay duration.

IV. Environment: Tourism development must consider its probable impact upon the surrounding environment. Since tourism development projects are mostly located within ecologically sensitive reasons, therefore haphazard tourism development initiatives may destroy these natural heritages. Therefore a group of variables can be incorporated to measure the present state of the environment which in turn reflects sustainable tourism. To represent this category indicators selected include air quality, urban paved road, lack of sound pollution, sewage treatment, coverage of green land, etc.

Following steps are followed in the process of developing the analytical framework.

Step-1: Determine the parameters (dimensions) for tourist destination performance analysis (TDPA). Four parameters were selected namely Economy, Efficiency, Effectiveness, and Equity.

Step-2: Select the indicators of each dimension. The selected indicators of different dimensions are:

Step-3: Standardised the indicators applying Range Standardisation Method. Standardisation formulae adopted include-

$$X'_{ij} = \frac{X_{ij} - X_{\min}}{X_{\max} - X_{\min}} \quad \text{.....}(1a)$$

$$X'_{ij} = \frac{X_{\max} - X_{ij}}{X_{\max} - X_{\min}} \quad \text{.....}(1b)$$

Step-4: Calculation of index weight by Entropy Method. Here, entropy value is calculated as-

$$e_j = -h\sum_{i=1}^{n} r_{ij} \ln r_{ij},\ j = 1,2,3,\ldots..,\quad n \quad \text{.....(2)}$$

Here,

$$h = \frac{1}{\ln(m)} \quad \text{.....(3)}$$

And m= number of attributes

Step-5: Multiply each value in the cell with the log value of that particular value, i.e. calculate

$$\sum_{i=1}^{n} r_{ij} \ln(r\,ij) \quad \text{.....(4)}$$

Step-6: calculate the value of entropy (e_j) multiplying the sum values $\left(\sum_{i=1}^{n} r_{ij} \ln r_{ij}\right)$ with the negative value of h.

Step-7: Calculate weight vector applying the formula-

$$w_i = \frac{1-e}{\sum_{i=1}^{n}(1-e_j)} \quad \text{.....(5)}$$

Here, (1-e_j) is known as degree of diversification.

$$0 \le w_j \le 1; \sum_{j=1}^{4} w_j = 1$$

The each value of wj can be used as objective weight of the criteria.

- **Entropy Weight Calculation**

  Applying the techniques and steps specify above, the entropy weights for all the indices were obtained; the specific results were shown in the table-4.

Table-4: Estimated Entropy Weight of the Indices

Target variable	Broad Indicators	Indices	Measurement	Influence	Weight
Performance Evaluation of Tourism Sector	Economy (E1)	1. Revenue earned from tourism	Tourism revenue/GDP	+	0.0812
		2. Growth of Tourism revenue	ACGR	+	0.0812
	Efficiency (E2)	3. Average number of tourist	Average no of tourist in a year/365	+	0.0884
		4. No of tourist per lodge	Actual no	+	0.0812
		5. No. of tourist per travel agency	Actual no	+	0.0965
	Effectiveness(E3)	6. No of lodge	Actual no	+	0.0812
		7. No of tourist agency	Actual no	+	0.0812
		8. No of site seeing spot.	Per sq. Km	+	0.0812
		9. Average stay	No. of days	+	0.0812
		10. Crime rate	Per thousand population.	--	0.0812
	Environment(E4)	11. Green land	Forest cover in sq.km	+	0.0846
		12. Atmosphere	Pm 2.5 (%)	-	0.0812

Source: Self Calculation from Directorate of Economics and Statistics, Tripura; Indian Tourism Statistics; Tripura Tourism Development Corporation; Economic Review, 2016-17, 2017-18 2018-19,

- **Tourism Performance Evaluation Model**

After determining the weight and evaluation criteria for each index through weighted comprehensive evaluation, this study build its model of tourism performance evaluation as under:

$$P_i = \sum_{i=1}^{n} X_{ij}^{/} W_j \qquad \text{.....(6)}$$

Here, P_i = Comprehensive performance value of ith index; $/ijX$= Standardized value of jth evaluation index; and W_j= weight of the jth index. The estimated comprehensive performance value (P_i) is interpreted using the evaluation matrix presented in the table-1.

- **Tourism Performance Analysis and Interpretation**

By inputting data into model-6 we can assess the performance of Tripura tourism from 2011 to 2019 and thereby interpret the result (table 5&6). The performance evaluation scores of the Tripura tourism sector presented above show almost a continuous improvement in the field of performance except in the years 2014-15 and 2015-16. The downfall in the years 2014-15 and 2015-16 can be attributed to the malfunctioning of meter-gauge railway line due to construction of a broad gauge railway line from to Lamding to Agartala. The performance was estimated as marginally fair in the year 2011. It goes on improving and rated 'good' status in the year 2017, 2018 and 2019

Table-5: Results of Performance Evaluation

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Evaluation Score	0.29	0.52	0.51	0.41	0.48	0.62	0.64	0.73
Grade	Fair	Good	good	Fair	Fair	Good	Good	Good

Source: Authors Self Computation

Table-6: Dimension wise Performance Evaluation Result

Year	E1	E2	E3	E4
2011-2012	0.0496	0.0611	0.0161	0.1658
2012-2013	0.1283	0.218	0.0541	0.1168
2013-2014	0.0983	0.1798	0.1252	0.1058
2014-2015	0.0514	0.1055	0.1602	0.0903
2015-2016	0.1012	0.1173	0.2314	0.0328
2016-2017	0.1065	0.1668	0.3463	0
2017-2018	0.0999	0.1516	0.346	0.0441
2018-2019	0.9854	0.2371	0.3571	0.4518

Source: Authors Self Computation

It can be noticed from the performance evaluation table that there is shrub improvement in performance from the year 2016. Over these periods, the performance of Tripura tourism has improved by per cent. This might be because of continuous affording made by Tripura Tourism Development Corporation Ltd (TTDCL) for the development of the tourism industry in the state. Another influencing factor may be the broad gauge railway connectivity from Guwahati to Agartala introduced in the year 2016, which makes the region easily accessible from other parts of the northeastern region of the country.

Factors that influence performance value in the context of Tripura might include loss of forest and wildlife, the problem of insurgency, poor connectivity to other parts of the country and other infrastructures, migrants from Bangladesh and loss of ethnicity, etc. Owing to these factors, tourism development was very slow from 2011 to 2015. The government and Tripura Tourism Development Cooperation Limited (TTDCL) make their all afford to overcome these problems by seeking aid from Central Government and they could succeed in their way.

Another contributing element could be the founding of the Tripura Tourism Development Corporation Limited in 2008, whose revenue generation has been steadily increasing since then, showing the sector's potential for further expansion. Previously, the Tourism Department was subject to the Department of Information and Cultural Affairs, but in 2013, a distinct Tourism Directorate was established, which serves as the Tourism Corporation's administrative department (GoI, 2003). Tripura's tourism growth grew prominent after that.

Overall Observation and Suggestion

An empirical test of evaluation index was developed to evaluate TDP fully and objectively assesses the performance values from 2011 to 2019. The highest performance value was recorded at 0.73 for the year 2019 (a good level), and the lowest performance value was observed at 0.29 for the year 2011 (a poor level). Overall, Tripura's tourism development performance showed sustained improvement. Although the results derived from the performance evaluation framework and method provided here were fairly clear and straightforward, it should be noted that TDP is a multidimensional concept, and there may have many other variables that could be considered to develop the comprehensive evaluation framework. Moreover, another limitation of this study is the use of a single case study. More comparative studies should be carried out to test and improve the model developed herein in future research.

Moreover, the hills northeast of Tripura is blessed with abundant natural terrain, with a unique geographical location in the centre of which the tropical regions of cancer run. The state embodies abundant biodiversity, unique landscapes and a warm climate all year round, and therefore has great tourism potential. The Tripura state government declared tourism as an industry as early as 1987. Locals are positive and enthusiastic about tourism, as tourism has the potential for the socio-economic development of the community. Unfortunately, for socio-political and geographical reasons, not only Tripura but the entire northeastern part has been ignored and remains underdeveloped. The concept of tourism development is a new phenomenon in the region. Since the entire Northeastern region has some common characteristics, the interdependency of the states and shared infrastructure, as such there should have a regional approach to the tourism development of the region.

The state of Tripura is renowned for the presence of temples, Rajbhari and Wildlife Park. The tourists are visiting throughout the year, particularly at the time of Puja and Diwali festivals. But, there is a lot of scope for further improvement of the tourist spots which can help to attract the tourists from different places. The state can introduce medical tourism, sports tourism, adventure tourism, since the state is attached with the country of Bangladesh, Nepal, Bhutan, Mayanmar and presently well railways/airways connection with the rest of the parts of the country. The government and tourism authority with local people help should take strategy for good maintenance of the wildlife park and also introduce either of adventure tourism or sports tourism along with accommodation for tourists.

Neermahal is one of the best tourist spots of Tripura; the maximum tourist chosen Tripura for travelling due to only taking the entertainment of Neermahal. The place has an accommodation facility which is located on the bank of the lake. Nevertheless, there is a lot of scope for further improvement like the introduction of a houseboat, Children Park, lighting show in the evening with proper security of tourists. The proper security of tourists must be given prime attention by the government because still there is fear among the tourists regarding their security.

Kamalasagar kali Temple is the second choice of tourists because of its location. The temple is located at the international border with Bangladesh. An international market can be opened by both the countries on their respective borderline. Moreover, tourists can be allowed to cross the border with instant permission for a few minutes to take foreign visit entertainment along with the purchase of foreign goods. Attentiveness in the conservation of natural and cultural heritage is essential for the development of the tourism sector. The administration, stakeholders and even the public should try to conserve and maintain the important tourist resources of the state. It would be worthy of the local people to come forward to monitor the process.

Tourism infrastructures are poor in the state of Tripura. Road conditions are not up to the level; the railways and airways facilities remains insufficient, although presently, the state of Tripura has been connected with the rest of the part of the country. Limited infrastructure in the form of the number of hotels, guest houses, rest houses, dharmasalas can cause problems to the tourist. The government can start its own guest house to accommodate the tourists and provide the best services to ensure the continued inflow of tourists. Moreover, in this regard, public-private participation is very important.

Again, the Insurgency problem and frequent agitations by different political parties and insurgent groups of North Eastern states cause a big problem to the tourism sector of the state as a whole. Frequent calls for agitation in the rest of the states of the northeast are found to cause serious problems to the tourist from different angles. It is time for the state government to take remedial measures to remove these types of incidences as early as possible.

The Tripura Tourism Development Corporation (TTDC) is not able to set up competitive advertising and marketing community to promote tourism merchandise to vacationers. The authentic internet site of TTDC isn't always as much as the preferred degree in order supply element statistics of the state. The loss of exposure and advertising and marketing on the nationwide and worldwide degree can be the motives to

discover the state tourism. Therefore, the advertising and marketing promotional interest ought to be familiar in the correct commercial of precise traits of the area, with a purpose to create the expertise of the same, to the present in addition to capability vacationers. Tourism operators, hoteliers, transporters, visitor courses etc, aren't educated sufficiently to offer specific statistics to the vacationers concerning the state which manifestly is a barrier withinside the route of improvement of tourism enterprise in Tripura. So, tourism activity needs some trained service provider as the mechanism is involved with different types of activities. The local people should be trained and be aware of the implications of tourism development so that they can improve the quality of hospitality of tourists.

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Pain of Paying in Price Promotion Between Individual Difference of Consumers

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Abstract

The study explores how price promotions such as probabilistic and conventional fixed price promotion impact the pain of paying within the individual differences of tightwad consumers, unconflicted consumers and spendthrift consumers. An online experiment was done to see how the pain of paying might impact price promotion by simulating a supermarket shopping environment. We find that probabilistic pricing promotions successfully stimulate demand, as they minimise the pain of paying more effectively, compared with fixed price promotions. For tightwad consumers who are much more susceptible to pain, probabilistic price promotion has demonstrated greater efficacy in reducing the pain of paying compared to fixed price promotion. In the case of unconflicted consumers, the level of pain of paying showed a difference between fixed and probabilistic price promotion, but at a lower rate as compared to tightwad consumers. However, the probabilistic price promotion did not demonstrate any efficacy in reducing the pain of paying among spendthrift consumers, who are less susceptible to the pain of paying, than the fixed price promotion in contrast to tightwad consumers. The results elucidate a reduction in the pain of payment persists to be a path by which price promotions build customer value.

Keywords: *Fixed price promotion, Probabilistic price promotion, Pain of Paying, Spendthrift consumer, Tightwad consumer, Unconflicted consumer*

Introduction

Promotion is a key factor for retailers and an effective strategy, and it has been commonly used to gain a competitive edge and increase sales and catch the buyers' intent —(Assuncao & Meyer, 1993; Srinivasan et al., 2004). Promotions influence the buyer's buying quantity and speed up the decision-making process –(Ailawadi & Neslin, 1998). Price promotion means a decline in the amount of money from the gross price over a short time frame in order to boost the income and profits of purchases and consumers (Huang et al., 2014). Earlier research has found that customer purchasing preferences are influenced by price promotions and that companies use price promotions more commonly to boost sales and profits —(Nowlis & Simonson, 2000; Yan et al., 2017). Price promotion increases the value of the commodity by attracting consumers by offering discounted prices –(Zeithaml, 1988). If the price rebate is given on the same product, the consumers buy more of that product. Significant focus was drawn to the relevance of marketing researchers' price promotions ——(Chandon et al., 2000; Chen et al., 1998; Shiv et al., 2005). The conventional price promotion provides safe or fixed price deals such as discounts and offers the most common promotional strategies used by retailers. Probabilistic price promotions such as gambling or lottery-style promotions are now replacing the conventional fixed price promotions ''—(C. Y. Lee et al., 2019; L. Lee & Tsai, 2012). Probabilistic price promotions are effective in a number of scenarios, much more than conventional fixed price promotions –(Mazar et al., 2017).

Past studies have shown both logical and emotional explanations for how promotional strategies impact purchasing decisions. Economic savings provide a legitimate foundation for price promotion since it enhances acquisition utility or the price-quality trade-off for customers. On an emotional level, price promotion is thought to provide added value to customers. When a consumer's internal reference price for an item exceeds the purchase price, they get positive transaction utility. Price promotion, according to ''— Lee et al.,(2019) is impacted not just by acquisition and transaction utility, but also by minimising the psychological pain of paying linked with the purchase. The study reveals that demand for products with price promotion is influenced by minimising the pain of paying. Our

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study adds to the line of study by exploring how pricing promotions such as traditional fixed and probabilistic price promotions impact consumer pain of paying. In particular, analyse the degree to which probabilistic price promotions are more enticing and capable of stimulating consumption by minimising the pain of paying for the promoted products. According to Rick, Cryder, and Loewenstein – (2008), the likelihood of experiencing the discomfort of paying varies depending on individual characteristics. A person's purchasing decision is impacted by the feeling he or she is experiencing at the moment of purchase. The researcher classifies consumers into three groups depending on how much pain they are willing to endure in order to affect their spending habits. Tightwads, according to the study, are those who experience tremendous pain when faced with the thought of spending money and hence tend to pay lesser than they might want. Spendthrifts experience insufficient amounts of pain while considering investing, therefore they prefer to spend more than they would desire to pay. Unconflicted consumers have a moderate amount of panic while conducting transactions and typically pay what they would eventually want to pay. Our study explores how price promotions such as probabilistic and fixed price promotion impact the pain of paying within the individual differences of tightwad consumers, unconflicted consumers and spendthrift consumers. We look into which price promotion can be offered by the retailers to attract each category of consumers, especially for tightwad consumers, who have a higher level of pain of paying.

Theoretical Background

Price Promotions

Price promotion lowers the price of a given quantity or raises the quantity available at the same price, thus further boosting demand and creating an economic opportunity to buy (Huang et al., 2014). Price promotions are popular and efficient marketing techniques to encourage buyers –(Peinkofer et al., 2015) and boost revenue —(Greenleaf, 1995; Walters & MacKenzie, 1988). It accelerates procurement and consumption – (Ailawadi & Neslin, 1998), stimulates the exchange of goods and brands –(Sun et al., 2003), encourages consumers to purchase more quantities –(Laroche et al., 2001) and eliminates introspection of buying behaviour. Price promotions can enhance shoppers' mood – (Heilman et al., 2002) and not just increase their assessments of promotion-related targets and ability to purchase but also their evaluations of promotion-related products by the purchase usefulness or the feeling that a decent deal has been won ——(Lichtenstein et al., 1990; Wu et al., 2021; Zhu et al., 2019). The Logical and affective hypotheses of how consumer behaviour is influenced by price promotions have been proposed in previous research –'—(Grewal et al., 1998; Lichtenstein et al., 1990; Thaler, 1985). Price promotion is said to build additional consumer emotional satisfaction — (Ghezelbash & Khodadadi, 2017; Hanaysha, 2017). Price promotion influences buying behaviour in another affective direction by reducing the psychophysical pain of paying linked to the purchase (L. Lee & Tsai, 2012). Price promotions will dull the pain of payment, encouraging shoppers to enjoy shopping more ''—(C. Y. Lee et al., 2019). Positive psychological improvements triggered by price discounts would increase the enjoyment derived from consumption –(Mazar et al., 2017).

Probabilistic Price Promotions

Different pricing promotions that give the same estimated economic benefits should have the same attractiveness and efficacy in encouraging purchasing behaviour, based on the acquisition efficiency and transactional effectiveness of price promotion –'–(Grewal et al., 1998; Lichtenstein et al., 1990). The pain of paying in the theory of price promotion indicates that probabilistic price discounts will boost demand for discounted products efficiently more than fixed price discounts ''—(C. Y. Lee et al., 2019). Probabilistic price promotion literature indicates factors that support probabilistic price promotion over conventional fixed price promotion factors — (L. Lee & Tsai, 2014; Mazar et al., 2017). The attraction to zero rates is one factor in promoting probabilistic price promotion. Previous studies have shown that promotions offering anything for free are likely to be judged differently than non-free promotions '——' (Ariely & Shampaner, 2006; Chandran & Morwitz, 2006; Murata, 2017; Shampanier et al., 2007). Since the former contains an additional positive factor, which is the prospect of having anything for nothing, individuals discover the probabilistic promotion more enticing than the guaranteed promotion of prices. Similarly, the probabilistic free price promotion will prefer the zero price effect, trouble or transaction cost considerations —(Fogel & Thornton, 2008; Kuo & Nakhata, 2016; Mazar et al., 2017). This is because the need to pull out one's wallet and pay is avoided by winning the probabilistic free price promotion. Novelty is another aspect that could support the probabilistic promotion of prices. Probabilistic price discounts can be especially enticing to consumers simply because they have not seen such promotions before –(Grewal et al., 2011; Kramer & Kim, 2007).

Individual difference: Tightwad, Unconflicted and Spendthrift Behaviour

Consumers' purchasing motive relies on the subjective aspect of pleasure of acquiring and spending pain. If there is no pain or inconvenience when parting with savings, consumers will pay more. They will spend less whenever the pain of parting cash is high –(Soman, 2001). A person must possess the qualities of

impulsive perception of the opportunity cost relative to the price of an object for the process of a straightforward trade-off. This would be the distinction of the present enjoyment of the commodity with the anticipated potential purchase by using cash efficiently —(Becker et al., 1974; Okada & Hoch, 2004). Many people do not care about the opportunity costs when trying to deal with rates, according to different studies focused on the decisions of humans —(Frederick et al., 2006; Jones et al., 1998; Northcraft & Neale, 1986). People think of the pain of paying rather than the actual opportunity cost in regular situations because it is so much simpler and more satisfying in personal views.

Individual variations in spending behaviour, according to research, tend to experience an instantaneous emotion, the pain of paying, which has a substantial impact on shopping behaviour. These combinations of low and high degrees of payment pain, according to Rick(2013), induce people to spend differently than they would normally. The tightwads, according to Rick et al. –(2008), seal the acquisition with a substantially lesser sum than they would have spent otherwise. They resisted purchasing multiple times due to the problematic nature of the payment. On the other hand, spendthrifts undergo less pain than is obligated to pay and spend far more.

The studies on spending behaviour, indicate that individual differences tend to experience an immediate feeling, the pain of paying, which has a strong effect on spending behaviour '(Prelec & Loewenstein, 1998). According to Rick (2013), these combinations of low and high levels of payment pain cause individuals to spend in a different way relative to the way they would typically spend. Rick et al. –(2008) especially predict that the people who experience extreme pain of paying, the tightwads, close the purchase with a much lower sum than they would usually have paid. Due to this difficult discomfort of paying, they refrain from buying on several occasions. The spendthrifts, on the contrary, experience less pain than what is needed to pay and spend much more. The third category, unconflicted consumers are those who feel a normal and mild pain of paying while making payment and does not have much variation with their actual spending and ideal spending patterns —(Olson & Rick, 2022; Victor & Dominic, 2021). Rick et al. –(2008) developed an individual difference scale, also known as the tightwad-spendthrift scale to measure these personal differences. Customers are investigated to see whether they have trouble controlling their tendency of overspending or if they are under pressure to spend.

Rick et al. – (2008) hypothesised that contexts that make spending less unpleasant, mainly by promoting higher spending among tightwads, can minimise tightwad/spendthrift spending differences. According to Frederick et al. (2006) and Thomas et al. –(2011), conditions that impact the pain of paying are likely to affect the extent of spendthrift tightwad spending inequalities.

Circumstances that reduce the pain of paying, particularly through changing the behaviour of spendthrifts, should reduce tightwad/spendthrift expenditure inequalities. Tightwad/spendthrift expenditure discrepancies can be reduced in conditions that enhance payment discomfort, but mostly by adjusting tightwad behaviour. During the Covid-19 outbreak, studies discovered that panic buying caused negative emotions of anxiety and worry, which reduced the psychological pain of spending. Customers that had a higher level of financial pain (i.e., tightwad consumers) observed a downturn in their level of pain as a result of panic buying prompted by the pandemic(George & Krishnan, 2021).

Pain of Paying

People experience hedonic competition when buying a product between the expected enjoyment resulting from the product being purchased and consumed and the expected losses elicited by pain of paying '(Prelec & Loewenstein, 1998). The transaction between these predicted gains and losses dictates the option of whether to buy or not to buy — (Mazar et al., 2016). Offer Zellermayer introduced the psychological notion of pain of paying (Zellermayer, 1996). The pain of paying is characterised by the act of making a payment as direct and immediate dissatisfaction or pain. Such pain is not physical, but the pain associated with making a payment is psychological or hedonistic. The pain of paying may decrease the joy of making a purchase, or it can persuade not to purchase at all (Zellermayer, 1996). The agony of being paid is not a metaphor. The amount of adverse impact associated with investing cash is modulated by its salience. It is correlated with insula activation, a brain area dealing with anticipated physical pain and monetary losses—(Knutson et al., 2007; Wager et al., 2013). With the theory of price promotion, payment pain works to consider the pain of paying as a self-acting driver of customer expenditure that functions as a counterbalance to the pleasure of purchasing '(Prelec & Loewenstein, 1998). In relation to the price of goods, the pain of payment is not fixed. It varies across transaction media, the size of the account from which a payment is made and the resources are drawn and customers –'——(George & Krishnan, 2022; Patrick & Park, 2006; Raghubir & Srivastava, 2008; S. I. Rick et al., 2008; Shah et al., 2016; Soster et al., 2014). The pain of payment is strongly and positively associated with the clarity of payment instruments, which is characterised as the relative salience of payment, in terms of both physical type and number, as compared to cash payments –(Soman, 2003). Cash provides the most straightforward form of payment because it is tangible and measurable, allowing the sum being exchanged to be registered immediately. By comparison, card-based payment

products provide low transparency, while other electronic and mobile payment formats offer even lower transparency –(Soman, 2003). The lower the degree of accountability, the more likely the payer is to invest –(Prelec & Simester, 2001). When paying with credit cards, customers often buy a greater amount of products than with cash, including for routine transactions such as groceries —(Raghubir & Srivastava, 2008; Soman, 2001; Thomas et al., 2011). Aside from liquidity limitations, cash payments cause a greater pain of payment than credit card payments because the loss of money is instantly understood (vs. at a later future date), and an abstract representation of the money (e.g., a plastic card or the wave of a watch or phone) does not obscure the salience of the loss – (Soman, 2001). In customer self-regulation, the pain of payment plays an important role in holding spending in check '(Prelec & Loewenstein, 1998). Different types of individuals experience differing degrees of payment discomfort, which can influence spending decisions. Tightwads suffer more than spendthrifts from this pain. Tightwads are also especially vulnerable to marketing contexts that make spending less expensive –(S. I. Rick et al., 2008). The pain and pleasure are derived at about the same time as intake and payment are closely linked to each other, and they help to balance and control each other. Consumers can easily gauge whether the discomfort is worth the enjoyment '(Kastanakis et al., 2022). But the pain is isolated from the enjoyment as they are separated from each other, and it becomes easier for customers to give themselves pleasures from consumption while avoiding unpleasant thoughts from the immediate transaction –(Alba & Williams, 2013; George & Krishnan, 2022).

Hypothesis

Hypothesis 1 - There is a significant difference in pain of paying for fixed price promotion and probabilistic price promotion.

Hypothesis 2 - There is a significant difference in pain of paying for tightwad, unconflicted and spendthrift consumers.

Hypothesis 3 – In minimising the pain of paying of tightwad, unconflicted and spendthrift consumers, probabilistic price promotion was more successful than fixed price promotion.

Methodology

An online experiment was performed to explore how the pain of paying will affect the attractiveness and effectiveness of a probabilistic price promotion to fixed price promotion by constructing an imaginary supermarket shopping scenario. In alleviating the pain of paying for supermarket shopping, we specifically checked the effectiveness of probabilistic and fixed price promotions. The theory assumes that, where the environment or customer makes the pain of paying apparent, probabilistic promotions can be more efficient and highly effective than fixed price promotion with about the same expected gain. By assessing the score on the individual difference scale, we measured the pain of paying intensity of consumers –(S. I. Rick et al., 2008). Since tightwads are highly susceptible to paying pain than spendthrifts, we hypothesized that the relative value of probabilistic promotions would be greater for tightwads than for spendthrifts.

Participants

We requested 121 business management students from Cochin University of Science and Technology to participate in the online experiment. The total participants included 47% males and 53% females. The mean age of the participants was 25.40 (SD 7.605).

Procedure

An imaginary situation was explained to the participants through Zoom platform. The situation was as follows

"*Imagine a situation in which while reading a newspaper in the morning, you came across an advertisement about promotional offers provides by your preferred supermarket. You decide to go to the supermarket. At the entrance of the supermarket, an advertisement board was hanged, mentioning the promotional offers available in the store. From that board, you came to know that on purchasing above Rs.1000, you become eligible for participating in the promotion of the store. You enter the store and purchase products worth Rs.1000. Now you become eligible for participating in the promotional offers of the store.*

Once you become eligible you have two choices,

Choice 1 - You get a confirmed cashback of exactly Rs.50.

Choice 2 - You get a scratch coupon which gives you a probabilistic chance to get the bill of Rs.1000 as cashback (Every 1 in 20 eligible customers wins this choice).

You can select any one of the above choices"

The participants could select any one of the choices which they prefer to avail as a promotional offer. Choice 1 with a confirmed cashback of Rs.50 portraits the fixed price promotion condition whereas choice 2 with the scratch coupon shows the probabilistic price promotion condition.

Next, the participants were given an online questionnaire link, the questionnaire included a scale with a single question of pain of paying — (Soster et al., 2014; Thomas et al., 2011) and individual difference scale –(S. I. Rick et al., 2008). The pain of paying scale precisely examines the pain of payment involved with the shopping and the respondents replied on a five-point

Likert scale, with smaller value suggesting a stronger negative impact, a middle point implying a neutral effect, and higher values having a more positive influence.

The individual difference measure assesses differences between individuals in the inclination to pay pain and differentiates consumers into three categories: tightwads, unconflicted, spendthrift consumers. The first component of the scale is a measurement scale of 1 to 11, with the least indicating tightwad and the greatest indicating spendthrift. The second element on the measure is broken down into sub, each with two sets of 5-point scale explanations. The final item of the scale defines a situation measured on a 5-point scale. Higher scale scores indicate a lower risk of experiencing payment pain.

Results

The data of the responses of the participants shows that out of the total 121 participants, 41% selected choice 1 with fixed price promotion of confirmed cashback of Rs.50 and 59% selected choice 2 with probabilistic price promotion of getting a scratch coupon with the probabilistic change of getting Rs.1000 as cashback. The effect of independent variable, price promotion (fixed and probabilistic price promotion) on dependent variable, payment pain are shown in Table 1 as a result of descriptive statistics.

To confirm Hypothesis 1, an independent sample t-test was performed, i.e., there is a significant difference in the pain of paying for fixed price promotion and probabilistic price promotion. Table 1 shows the result of the t-test with pain of paying as a dependent variable and Price promotion as a grouping variable. For the intent of doing a t-test, the fixed price promotion and probabilistic price promotion were sufficiently normal (skewness < |2.0| and kurtosis < |9.0|) (Schmider et al., 2010). Through Levene's F test, the presumption of homogeneity of variances was checked and satisfied, $F\,(119) = .072,\ p = .790$. The independent t-test study revealed statistical significance, $t\,(119) = -2.259,\ p = .026$. The null hypothesis was thus rejected, demonstrating a statistically significant difference in the pain of paying for the promotion of fixed prices and the probabilistic promotion of prices. The results indicate higher pain of paying for fixed price promotion compared to probabilistic price promotion. Cohen's d, based on Cohen's 1992 guidance, was measured at .412, which has a medium effect (Cohen, 1992).

Table 1. Descriptive statistics and independent sample t-test results of the influence of Price promotion on Pain of paying

Pain of paying									
		N	M	SD	Skewness	Kurtosis	t	df	p
Price Promotion	Fixed Price Promotion	50	3	1.325	-0.165	-1.021	-2.259	119	0.026
	Probabilistic Price Promotion	71	3.52	1.194	-0.492	-0.571			

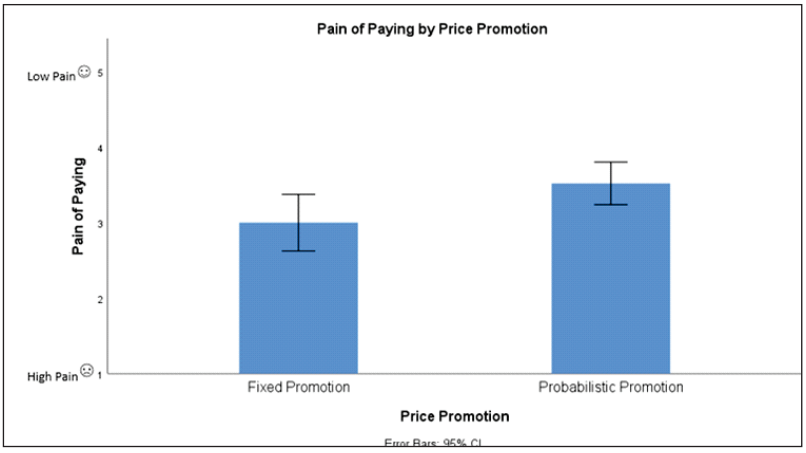

Figure 1: Graphical description of pain of paying with a 95 % confidence interval by fixed and probabilistic price promotion.

Table 2. Descriptive statistics and ANOVA results of the influence of individual difference (ST-TW) on Pain of paying

Pain of Paying									
		N	M	SD	Skewness	Kurtosis	F	df	p
Individual difference	Tightwad	32	1.78	0.906	1.019	0.335	172.942	2,118	0.000
	Unconflicted	37	3.03	0.499	0.064	1.451			
	Spendthrift	52	4.44	0.539	-0.153	-1.18			

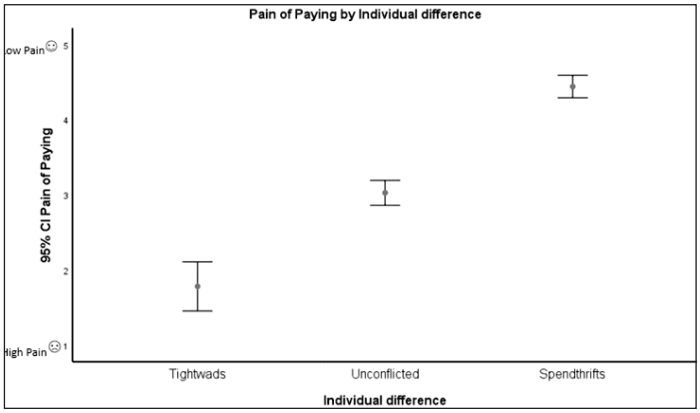

Figure 2: Graphical description of the pain of paying at a 95% confidence interval across individual differences

We also regressed the pain of paying for the price promotion, consumer individual difference score, and their connectivity for the supermarket shopping experience. The regression revealed a significant impact of the probabilistic price promotion (β = .203, p = .026) and a favourable influence of the individual differential score for the customer (β = .863, p < .001).

To test Hypothesis 3, a multiple line graph was plotted. Figure 3 reveals that for all participants, the probabilistic price promotion was more effective than the traditional fixed price promotion in reducing the pain of paying. For tightwad consumers, the pain of paying showed a large difference between fixed price promotion and probabilistic price promotion. Consumers who are more sensitive to pain shows greater effectiveness of probabilistic price promotion at minimising pain of paying compared to fixed price promotion. In the case of unconflicted consumers, the level of pain of paying showed a difference between fixed and probabilistic price promotion, but at a lower rate as compared to tightwad consumers. However, among spendthrift consumers, probabilistic price promotion reducing the pain of paying was less efficient compared with fixed price promotion. The probabilistic price promotion did not demonstrate enough efficacy for participants less sensitive to the pain of paying than the fixed price promotion in reducing the pain of paying relative to tightwad customers.

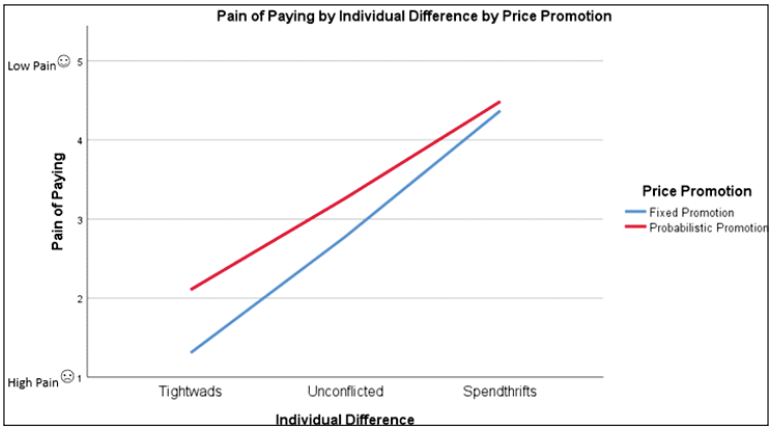

Figure 3: Line graph of pain of paying of individual difference consumer by probabilistic price promotion and fixed price promotion

Discussion and Implications

Most people make purchases by looking at the promotional offers attached to the purchase of a product. A large body of literature has suggested the impact of promotional offers on the purchase decision (Istikhomah & Marwati, 2021, 2021). In our study, we look into what type of promotion is more attractive to the different types of consumers. Based on the study of Rick et al., (2008), consumers are classified into three categories: Tightwad consumers, Unconflicted consumers and Spendthrift consumers. Tightwads are consumers who spend less than they would ideally like to spend. They feel a negative psychological pain associated with payment which retrieves them from spending. Unconflicted consumers are people who generally spend what they would like to spend. Spendthrifts are consumers who overspend their money. They are people who feel a lower level of pain of paying, which makes them spend more.

By acquisition efficiency and transaction utility, price promotions promote spending activity, this research identifies pain of paying as a unique effective direction beyond these utilities. We specifically evaluated the effectiveness of a probabilistic pricing promotion in minimising the pain of payment involved with the purchase in an online experiment and evaluated its effectiveness with that of promotion of a fixed price. The experiment gives convincing proof that, since they provide relief from the pain of paying, probabilistic promotions are effective and profitable. For all participants, probabilistic promotion successfully minimized the pain of paying, and it was relatively more favourable than a fixed price promotion for participants who were more susceptible to the pain of paying. The results of our research add to the current understanding of the efficacy of probabilistic price promotions. The results provide evidence that pain of paying is higher in the case of fixed price promotion compared to probabilistic price promotion. This shows consumers are attracted to risk-seeking behaviour to gain more. The individual difference of consumers with the level of pain of paying, shows the tightwad consumers who feel extreme pain at the prospect of spending cash have greater effect from probabilistic price promotion compared to fixed price promotion. Our findings indicate that probabilistic price promotions may effectively stimulate demand more than comparable and even greater than more expensive fixed promotions, particularly for categories and situations in which the pain of paying is likely to be strong.

Promotion is the most effective activity that can attract the consumers' spending behaviour. Attracting tightwad consumers is a difficult task for marketers and retailers. Our study provides experimental evidence that can be practically used by the retailers in encouraging consumers to spend through probabilistic price promotions. A practical implication of our study result helps in identifying for which individual category of consumers probabilistic price promotion are most valuable. Our findings suggest that probabilistic promotions are likely to be particularly effective for consumers most acutely affected by the pain of paying.

We acknowledge several limitations of this study. One of the limitations is that the experimental study was conducted in an online platform and we were not able to completely immerse participants in a realistic retail environment where they experience real promotional offers. Future works can conduct the study in the real-world scenario with different promotional offers which attract individual differences of consumers. The current study focuses only on fixed and probabilistic price promotional offers, future works can look into other forms of promotional offers also. Retailers and merchants will be able to use the study results to determine which promotional offers should be offered in order to attract different categories of consumers.

Conclusion

We recognise that it is always appealing and efficient to provide probabilistic pricing promotions. Their importance to customers derives from their ability, to minimise the pain of paying for the products promoted, far more than comparable fixed price promotions. Our studies offer realistic marketing campaign insights and define a special, emotional process by which price promotion enhances the overall effectiveness of promoted goods. In addition to the growing value of acquisitions and transactions, the results elucidate a reduction in the pain of payment persists to be a path by which price promotions build customer value.

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Challenges Faced By Primary Teachers in Implementation of Innovative Teaching Pedagogy during Pandemic

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Abstract

Primary education is base of education system in India. Government also initiates various programs to increase the level education system. During Covid -19 pandemic when country was under lock down situations, our health workers put their 100% effort to save the life of people. On the other hand, our teachers spread the knowledge to provide quality education to aspirants by various modes. It was new challenge for our teachers, to maintain teaching learning process with the help of technology.

This research paper is based on the adaptation of technology and usage of innovative teaching pedagogy by primary teachers. We shall study about the challenges faced by them while teaching. This research is empirical in nature. The data will collected from primary sources by using Google form. Out target population are Primary teacher and there is geographical restrictions with in India. In this study, minimum 100 samples would be collect for analysis.

Keywords : *Primary education, innovation, teaching learning.*

Introduction:

The world facing Covid -19 pandemic, in the year 2019, First case was found in China than was spread all over. First case of India was from Kerela than all of the sudden things were changes. The Government of India announced lockdown in March 2020 (Charania et al., 2021). This virus was totally new for us and no one knows what to do.

India take the similar step as the other countries of the world has taken by shut down all economic activities. According to UNESCO, 630 Lakhs faculties were affected in 165 countries. A sum of 1.3 Crore students all over the world were not able to be present at school or university and approximately 32,07,13,810 learners are affected in India alone. (Joshi et al., 2020). When government was decided to reopen/ relaxation in lockdown, it was not yet to be decided, how to run education sector, specially primary and pre primary were main concern, because of unawareness among the kids towards the virus addition chances of spread of virus through the children.

Primary education in any country gives base for the education system. Our get success to enrolled more students for primary education, Kerala was the first state declared as 100% primary education in 2016 (Saakshar Organisation, 2017). Still our education system has lots of issues. Education act was in different province of India during 1918-20 (Basu), it was not implemented properly. Since before independence , attendance of the students in school was an issue, problem was social and economical as well in urban areas (Basu). School in India specially under government facing issue of infrastructure, road connectivity, power supply, toilets and insufficient teachers. India is among the top five nations for out-of-school children of primary school age, with 1.4 million 6 to 11 year olds not attending school. In many ways schools are not equipped to handle the full population, there is a teacher shortage of 689,000 teachers in primary schools, only 53 percent of schools have functional girls' toilets and 74 percent have access to drinking water. (sahni), According to Pratham's Annual Status of Education 2013 report, close to 78 percent of children in Class III and about 50 percent of children in Class V cannot yet read Class II texts.(Sahni)

During lockdown period, school teachers also play their role and other Covid worriers. Teachers not left their duties and provide education with learning either by online or blended mode. Covid pandemic was new for us, government or individual no one know how it will be, then concept of online teaching was incepted in teaching pedagogy(**Fernando Ferri)**. Guidelines issued by Ministry of Human Resource Development followed

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by UGC, AICTE, Dept of Primary Education in various states, recommend and approved all platforms of online teaching like Google meet, Zoom etc.

Teaching without face to face interaction with students was a new experience, and at school level especially at primary schools. Teachers were faced various problems to at initially level like lack of internet connectivity, knowledge of using online platform was not sufficient and so on(**Nadezhda Almazova)**.

Literature Review

COVID-19 pandemic has affected all facets of life including teaching. With strict measures to prevent COVID spread teachers across the world were forced to shift to online mode. Several advanced countries had no problem in this shift as they were already using innovative teaching techniques due to well-developed IT infrastructure in place to support it. However, in India this shift was extremely difficult, stressful and there were several roadblocks in shifting to online mode due to poor computer literacy and inadequate IT infrastructure. Teachers who were on higher side of age and had years of experience to their credit had a tough time handle the new normal, i.e. the online mode.

The change from face to face to e-learning pedagogy has influenced progression of teachers as well as quality of education. For e-learning to be impactful it is critical that all the parties involved are at the same level of willingness and expertise at using electronic mode. However, strategies or pedagogy that makes learning effective, efficient, engaging and impactful has to be used in online as well as offline mode (Lukas & Yunus, 2021). The use of appropriate technology for teaching learning is important both for teachers as well as for students. It helps teachers to be more effective and efficient with pedagogical skills, while the students who are involved in learning through electronic means are seen to be better learners as compared to students who studied only through traditional means, however e-learning has certain limitations like readiness at the end of teacher to adopt such method, IT infrastructure in form of availability of devices such as smartphones, laptops and computers etc. and internet access.

Class management issues linked students' participation and engagement too is a deterrent in adopting e-learning methods(Ahmadi, 2018).

There are various barriers that become a reason for adopting e-learning by teachers as well as students. At home of teachers or student these are mostly associated with absence of facilities and various types of disturbance including family interventions. lther issues include Lack of IT infrastructure and poor awareness and expertise of online teaching platform and negative attitude on part of students and teachers towards online teaching (Joshi, Vinay, & Bhaskar, 2021). Teachers faced several issues in shifting to online mode of teaching most critical being internet connectivity, inadequate knowledge of use of IT tools for teaching, poor attendance and absence of personal touch (Arora & Srinivasan, 2020).

The Indian government along with State government took efforts to ensure that the shift to the online mode is smooth, they made arrangements for content in digital form that may be used by teachers for their classes, however several teachers found these digital content of lesser uses as either these were not suited to the learning needs of students or were not suited for the current context (Charania, Bakshani, Paltiwale, Kaur, & Nasrin, 2021).

The digital resource made available to school to teachers by the government were mostly out of context and thus didn't have much utility (Singh, Satyavada, Goel, Sarangapani, & Jayrndran, 2020). For the government as well as for private schools WhatsApp has been the more preferred means used by school teacher to share content with students and to communicate with them. (Vyas, 2020)

Research Objectives

There are some objectives for these researches are as follows:
1. To understand issues and challenges related to online teaching faced by primary teachers.
2. To understand innovative methods used in teaching pedagogy.

Methodology in Research:

This study is empirical in nature; the collection of data is based on primary and secondary sources. Sample of 1054 has collected from different geographical location like Uttar Pradesh, Madhya Pradesh & West Bengal. Study is focus on primary teachers only therefore data are collected by purposive sample technique. Google form was used for the collection of data. SPSS 20 is used as software for data analysis. Statistical tools like correlation,. To test the hypothesis, authors used Chi-Square test.

Description of Data

45.3 % of respondents are between 25-35 age group, followed by 35-45 range 33.2% and above than 45 age peoples are 21.5%. In the context of experience 15.9% and 15.7% are of 14 years and 15 years of experiences, 12.1% respondents are 16 years of experience. Most of the respondents are working in urban (64.1%) and 35.9% belongs to rural areas. Similarly, 29.2% are

working in government schools and 70.8% are working in private schools. Maximum people are using online teaching 93.7% remaining used blended teaching. Google Meet is a popular platform for online line teaching 47.3% of respondent chosen it were as 33.6 % has selected other modes like using "Whatapp".

Most of the teachers (75.2%) were taken the classes from home as well as from school. 73.6 % people from the respondent having internet at home. 81.9% answered that , they need to upgrade their internet services for online teaching. No reimbursement has given to the teachers from institute on using their own assets (96.4%). Approximate 50% of institute having internet, but speed is basic problems in the institute (63.9%). Infrastructure is major issues in the schools 62.9%. Live video classes are adopted by maximum teacher during pandemic (49%). Most of the respondents strongly agree that traditional method of teaching is more effective around (71%) respondents. Maximum teaches regularly using blended method in teaching. But on the other hand they also respond that, they are adopting online teaching by force or due to necessity during lockdown.

When we talk about IT skill, 27% people from total sample accept that, they lack of IT Skills. 59.3% strongly agree that online teaching is more effective in higher education. Maximum teachers agreed that they needs proper guidance in IT education (37.9%). Responses of people on the questions bases on problem are, there is a mixed opinion in student's engagement, getting proper feedback is from the students is one of the issues another one is query handing of students is also a problem during online classes. 45% of the teachers disagree on the question that they are not guided for IT. There is positive approach from the school management that they gave freedom to teacher to teach and use any tools as per their convenience. Assignments, as part of teaching method were used by most number of teachers (58.2%). For online teaching 80.2 % of teachers purchased new smart phone. Following are some other problems which were faced by the teachers.

1. IT Illiteracy of parents.
2. Poor Attendance

Hypothesis:

1) HO : There is no association between Age of teachers and Use blended Teaching Pedagogy before pandemic.
2) HO : There is no association between Experiences and Use blended Teaching Pedagogy before pandemic..
3) HO : There is no significant association between Age and Experiences with IT skills possessed by teacher..

First hypothesis: To analyse the association between Age and Teaching Pedagogy, we used chi-square test as follows:

TABLE 1

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AGE * TEACHING@PEDAGOGY	1054	100.0%	0	0.0%	1054	100.0%

TABLE 2

Count

		USE OF BLENDED PEDOGOGY BEFORE PANDEMIC					TOTAL
		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	
AGE	25-35	26	66	58	292	35	477
	35-45	62	28	43	36	181	350
	MORE THAN 45	0	42	0	98	87	227
Total		88	136	101	426	303	1054

Chi-Square Tests (TABLE 3)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	378.227[a]	8	.000
Likelihood Ratio	456.662	8	.000
N of Valid Cases	1054		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 18.95.

Table 1 represent to missing value in both the variables, table 2 shows range of respondents with their responds. It shows teachers between age 35-45 agrees that they used blended or mix of online and offline teaching methods before Covid-19 pandemic. To test the hypothesis, Chi –square test is applied. Result of test is reflected on table 3 p value in table is zero which is less than 0.05,hence we reject the null hypothesis.

Second hypothesis: To analyse the association between Experience and Teaching Pedagogy

TABLE 4

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
EXPERIENCE * TEACHING@PEDAGOGY	1054	100.0%	0	0.0%	1054	100.0%

COUNT

TABLE 5

		USE OF BLENDED PEDAGOGY BEFORE PANDEMIC					
		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL
EXPERIENCE	1	0	0	0	1	3	4
	2	0	0	4	0	0	4
	3	0	0	3	0	3	6
	4	8	0	0	8	0	16
	5	0	0	20	30	0	50
	6	0	6	0	12	0	18
	7	7	14	7	14	0	42
	8	8	0	8	16	16	48
	9	0	0	18	0	18	36
	10	0	0	0	30	40	70
	11	11	0	0	22	11	44
	12	24	36	0	36	12	108
	13	0	0	26	0	13	39
	14	14	28	0	98	28	168
	15	0	0	15	45	105	165
	16	16	32	0	64	16	128
	18	0	0	0	0	18	18
	20	0	20	0	0	20	40
	25	0	0	0	50	0	50
Total		88	136	101	426	303	1054

Chi-Square Tests (TABLE 6)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1022.638[a]	72	.000
Likelihood Ratio	1034.994	72	.000
N of Valid Cases	1054		

a. 42 cells (44.2%) have expected count less than 5. The minimum expected count is .33.

Table 5, shows responds of teachers according to their experience and application of blended mode of teaching before teaching. In this table, it is clearly visible that with experience, adaptation of blended teaching pedagogy also increases. With use of Chi-Square test it is test and the result is significant. The value of P is equal to 0, which is less than 0.05.

Third hypothesis: To analyze the association of Age and Experience with IT Skill of the teachers.

COUNT **TABLE 7**

	LACK OF IT SKILL					
	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL
25-35	84	52	45	27	80	288
AGE 35-45	74	117	23	48	74	336
MORE THAN 45	0	0	93	68	269	430
TOTAL	158	169	161	143	423	1054

Chi-Square Tests (TABLE 8)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	421.110a	8	.000
Likelihood Ratio	447.746	8	.000
Linear-by-Linear Association	.670	1	.413
N of Valid Cases	1054		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 31.27.

The third hypothesis is based on association of Age and Experience with lack IT skills of the teachers. Table 7, shows that teachers in age group above 45 are strongly agrees that they having lack of IT skills which is required for online teaching and innovative teaching methods follows by 35-45 and 25-45. Hence there is some association between Age and IT Skill. To data has tested , value of P is zero.

COUNT

TABLE 9

		USE OF BLENDED PEDAGOGY BEFORE PANDEMIC					
		STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL
EXPERIENCE	1	32	10	2	5	1	50
	2	37	23	0	1	0	61
	3	54	43	5	10	3	115
	4	72	22	4	5	4	107
	5	46	10	15	15	3	89
	6	37	0	12	6	2	57
	7	14	7	0	7	14	42
	8	8	8	8	8	16	48
	9	18	0	0	0	18	36
	10	2	0	20	20	10	52
	11	12	0	11	11	0	34
	12	27	12	12	18	24	93
	13	0	0	0	26	13	39
	14	5	20	5	8	4	42
	15	12	15	30	15	0	72
	16	12	0	16	16	0	44
	18	0	0	18	0	0	18
	20	0	40	0	0	0	40
	25	15	0	0	0	0	15
Total		158	169	169	151	407	1054

Chi-Square Tests (TABLE 8)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	952.032a	72	.000
Likelihood Ratio	926.267	72	.000
Linear-by-Linear Association	49.108	1	.000
N of Valid Cases	1038		

a. 28 cells (29.5%) have expected count less than 5. The minimum expected count is .55.

Table 9, is tabulation between experience and opinion of teachers towards their IT skill, we can see that, those having more experience in teaching having less IT skills, to test this Chi Square was used and the result is also significance, value of P is zero which is less that 0.05.

Findings & Conclusions:

The major finds of the study indicates that during covid pandemic teachers fulfilled their major responsibilities. Teachers are agreeing that traditional method of teaching was best, infrastructure and internet speed in school is an issue. Most of the teacher used their own asset for teaching and not reimbursed from the school. Online teaching was used by majority of teachers through the software like Google meet, Whatsapp etc. Classes were conducted from both home and school during lockdown and after reopening. Preferred teaching mode was live classes, it is clearly mentioned, teachers have adopted the online process by forced. Teachers around 45% of total reply that they not guided for information technology related training for online teaching. Higher education teaching is more effective in online teaching.

Teachers were facing problems during online teaching like feedback issues, proper query handing. In case of new teaching innovative pedagogy using video clips is adopted by all of them, simultaneous teaching through quiz and assignment is most feasible way for feedback and interaction with the students during online classes.

It is also found that teachers purchased new smart phones for online classes during pandemic. Some other majors issues which came to notice are inefficient IT skill of teacher and use of teaching pedagogy (blended) previously. From the table no 2 and table no 4, it clearly shown that teachers having age range from 35-45 and above 45 using blended teaching pedagogy frequently, therefore , blended teaching is easy for them, those having experiences. Other the other hand, in table 7 and table 9 reflects the association of age and experience with IT Skills. It is analyse that, with increase in age knowledge / expertise in information technology is diminishing, young teacher are more conformable with it, in compare to old age. Similarly, those having less experience in teaching are more confident using smart phones, computers and other software.

As per the data teachers were also faced the problem of attendance of students during online classes. Illiteracy of parents in context of information technology is another issue, with other work load.

This study reflects that a teacher also plays a vital role during pandemic. They use innovative thing out of their comfort zone to teach the students. Besides their own problems during pandemic, teaching and learning process is still continued, teacher learn new technologies, new methods without any structured guidance or training from their respective organization.

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In The Age of Automation and AI, What Does The Future Hold For Labour Unions?

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Abstract

The COVID-19 problem has hastened a pace of significant digitalization in economic production and services that had already begun. For the first time, AI and robotics are becoming autonomous and self-learning, with human-like capabilities. The need to examine digitalization and the future of work has grown even more urgent. Until recently, labour unions were the most powerful institutions representing workers. However, the increasing prospect of intelligent robots replacing humans calls into doubt the viability of labour union policy. This development jeopardises their conventional power bases, which rely on the participation of large numbers of salaried workers and their ability to halt production. This paper tries to analyse the issues that unions face in capitalist democracies in this setting. The premise that the digital revolution will eventually generate new, better jobs has been endorsed by the majority of research work on labour relations. We propose that we investigate an alternate scenario, namely, a digital revolution that results in mass human worker replacement and structural, technological unemployment, which could broaden our perspective, particularly in terms of public policy design. We believe that labour unions now play two critical roles. The first is to protect workers' rights and interests as the economy shifts from paid labour to automated-autonomous production; and the second is to change their primary mission from representing employees to representing the social rights of all citizens, particularly the material interests of laypeople.

Key Words: *Automation, Artificial intelligence, Future of work, Union, labour*

1. Introduction:

The globe has been dealing with a worldwide health catastrophe that has compelled governments all over the world to take unprecedented measures to halt the spread of the SARS-CoV-2 virus (COVID-19 or coronavirus) and variations. Closing ground and air borders, closing schools and universities, shopping malls, production and manufacturing facilities, and ordering individuals to exercise social distance and undergo quarantines and full lockdowns are all examples of these activities. Companies in a variety of nations have been forced to adapt their working processes in order to protect their employees' health, which has resulted in remote employment, typically from home. Although many hi-tech companies had previously permitted employees to work from home on occasion, it was highly rare to find businesses that did so-on a full-time basis.

Companies aren't the only ones changing their business models; educational institutions have also shuttered their campuses and moved to online instruction. Doctors and nurses were required to safeguard themselves and provide remote healthcare services to those infected with Covid-19 and those in quarantine, which transformed the entire global healthcare system. Organizations have been compelled to adapt and invent new ways for their employees and students to work and learn as a result of this dramatic transformation. The coronavirus outbreak has hastened the use of digital technology to enable "remote living" (i.e., working, learning, and interacting using online technologies) for people to continue working, meeting, communicating, collaborating, learning, and accessing information. Through the acceptance and deployment of advanced technology, businesses are undergoing a rapid digital transformation. The "future of work" has moved faster than expected due to the quicker speed of deploying digital technologies and allowing alternative ways of labour. Many academics, analysts, and influencers have been drawn to these changes. This article focuses on how this faster workplace change is affecting labour unions in this environment. Four distinct observations can be made when looking at the various steps that governments and employers have tried to deal with the COVID-19 pandemic. The first is that digital technology allows for the completion of more jobs with less human effort.

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The second point is that while digital platforms allow people to work and earn money, they often lack the material security, job security, and fulfilment that many traditional occupations bring. The third point is that large structural-technological unemployment is a realistic expectation, not a nightmarish vision. The fourth point is that governments will play a critical role in ensuring citizens' material security, which means we cannot rely exclusively on market logic, but must integrate it within a social framework. We'd want to talk about the role of unions in this setting. Between the mid-1940s and the mid-1970s, they were a crucial institutional participant in the developing world's political-economic order. They constituted major sectors of the workforce at the time, and many workers were covered by collective bargaining agreements. They supplied social services and had a big influence on macro social and economic policy. They were, in reality, a component of capitalism's structure [1]. Unions, on the other hand, have played a minimal part in the post-Fordist and neoliberal regime since the late 1970s. In most nations, union density2 has decreased considerably [2]. Business corporations stifled unions, while government legislation limited their ability to organise. They were irrelevant to developing economic sectors like hi-tech and others. They lost influence and resources, and hence were unable to provide benefits and services to their members as they had previously [3]; (pp.6-13). Since the global economic crisis of 2008 and the growth of more technologically advanced kinds of employment, the subject of unions' function has resurfaced, especially when the vulnerability of vast populations of workers becomes apparent [4]; (pp. 25–29). In the domains of labour studies, sociology, and labour law, most of the scholarly literature on digital technology and the labour market has focused on platform capitalism and how it is linked with the gig economy. The gig economy is seen as the next step in the labour market evolution, and it is projected to serve as a transitional phase, or "grace period," between the existing economy and a completely digitalized economy. The COVID-19 epidemic, and the social distance measures that accompanied it, had a significant impact on the gig economy [5, which is built on interpersonal contacts mediated by a digital platform. Some governments have outlawed ride-sharing [7], and others have outlawed it entirely [8]. The COVID-19 situation has brought to light the dangers and anxieties faced by those who rely on gig platforms as their primary source of income [9,10]. Some gig economy platforms, on the other hand, have seen a significant surge in demand for work and employees. People have been driven to employ delivery services on a vast scale as a result of social distancing measures and widespread company closures [11]. As a result, it appears that the gig economy's potential are more limited than previously anticipated. The COVID-19 situation, on the other hand, has had a much more dramatic impact, resulting in enormous job losses, layoffs, and unpaid leave for millions of individuals all over the world [12]. Retail, hotels and hospitality, airlines, travel and tourism, athletic events, restaurants, theatres, and concerts have all been impacted significantly [13,14]. Since 1948, the United States has witnessed the highest rates of employment loss, 50 percent higher than during the 2008 financial crisis [15,16]. Governments were put under a lot of strain as a result of these large layoffs. This was particularly evident in unemployment and welfare agencies, which had to deal with enormous volumes of requests in a short period of time [17]. Because of the need to maintain strict social distance, governments have been quick to develop and deploy digital tools and solutions in order to continue to function and help their population during this crisis.

Major crises have traditionally been powerful catalysts for change, hastening innovation as well as the development and adoption of new technologies and ways of working. Following the 2008 financial crisis, the gig economy resurfaced in the professional sector, fuelled by global internet platforms like Airbnb and Uber. The coronavirus outbreak could also be a forerunner of rapid changes, fuelled by digital technologies, that will impact every part of our life. Even once the coronavirus crisis is over, the current way of "remote living" may become the new standard for many organisations around the world. Massive layoffs, workers' inability to access their workplaces, and the augmentation and replacement of human labour by digital technologies, particularly Artificial Intelligence (AI), suggest that the current labour market changes may not be temporary, but rather a prelude to a deeper transformation that will force millions of people to work in nonstandard jobs or face unemployment. The digital age has arrived earlier than planned and is speeding up, with the effect that human labour will be mostly replaced by automated labour.

Traditionally, the main institutions that represented workers have been unions. In this new environment, how can labour unions remain relevant? What contribution can they make in this new period, which may be marked by a steady decline in their membership? These are the key issues discussed in this article.

2. Objectives and Presumptions:

It is necessary to state our assumptions and points of departure for this article before proceeding with the discussion:

- The purpose of this study is to analyse two major forthcoming problems that unions in capitalist democracies and post-industrial society will face. The first is the role of labour unions in the shift from a labor-based economy to one based on automated production. The second is labor's new perspective on how to position itself as the jobless economy becomes a reality.

- The labour market scenario we've presented is the most dramatic, and it's still being debated. We believe, however, that unions must be ready for it. Scholars may not always agree on the scope of future work transformations, but there is broad agreement that they will be transformative [18]. 3

- AI differs from prior technical advancements in that it provides autonomy and autonomous capabilities through the use of hardware and software that were previously unavailable.

3. Methods:

The goal of this study is to support the aforementioned objectives by examining the topic of job automation and its implications for the labour market. This is accomplished by combining two research methodologies: intuitive logics, a branch of scenario planning, and a thorough evaluation of the contextual environment during times of disruption and change.

"1) improving understanding of the causal processes, relationships, and logical sequences underlying occurrences - thus revealing how a future state of the universe may emerge;

2) Challenging organisations' conventional thinking and prevalent views; and, as a result, 3) strengthening decision-making processes in those organisations" [19] p. 633; [20].

To disprove long-held assumptions about the impact of sophisticated technology (AI and robotics) on jobs and the labour market, we apply the intuitive logics method outlined by Wright et al. [19]. The intuitive logics method is useful in situations where previous experiences are interrupted or discontinued, as well as "as a way of exploring alternative futures... in situations of extreme uncertainty when analytic and developmental approaches fail to capture the full range of possibilities" [21]; p. 505). The intuitive logics are also employed in this study to do a kind of "wind tunnelling" test on our main claim, as well as to establish a new agenda and how it might materialise in the short and long term future [22].

4. The Ongoing Debate Concerning Technology Advancement And Its Societal Repercussions:

Any discussion of the implications of automation and AI for production and service operations must begin with a comprehensive overview of the impact of technology advancements on economic progress, as well as why the current advances have revolutionary implications.

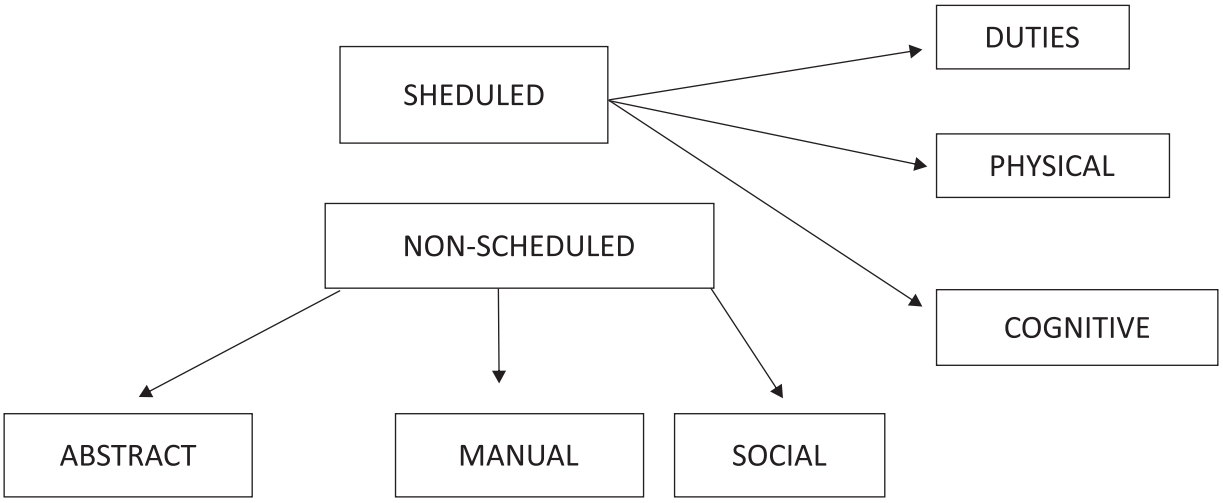
The debate about the effects of technology advancements on the job market is not a new one. John Maynard Keynes, a well-known economist, wrote about the economic and social conditions a century ahead of his time, as well as the path to get there, in early 1930. Since the beginning of the first industrial revolution, pessimistic conceptions of the future have accompanied the contemporary world, according to Keynes. Fear of the negative repercussions of economic development spawned two extreme movements: reactionaries who sought to block progress by avoiding any active actions to improve the economy, and revolutionaries who saw no other option than to use violence to change society. In contrast to these voices, Keynes envisioned a hopeful but realistic future. He considered the economic and social difficulties of his period as "growing pains of over-rapid transitions" [23] [1930], p. 358), rather than diseases. Capital accumulation and technical advances, according to Keynes, would enable a level of production much beyond what the rising population could consume. In addition, he anticipated that sophisticated technology will render a portion of the human employment obsolete. However, he said that this would not be an issue because people would work fewer hours and for the sake of their well-being rather than their financial stability. Growing automation led to optimistic views of new possibilities that freed workers from their routine jobs, while concerns were raised about workers' health, structural unemployment, and other issues. The debate about technological leaps and the future of society resurfaced in the 1960s when growing automation led to optimistic views of new possibilities that freed workers from their routine jobs, while concerns were also raised about workers' health, structural unemployment, and other issues. Automation funds, which were to be cooperatively administered by unions and companies to support workers during this transition, were one possible answer [24]. "... new technologies... will enable only one person employing cutting-edge technological instruments to complete the work that currently demands ten people or more," wrote David Ben Gurion, the founding father of the modern State of Israel, in December 1969 (translated from the Hebrew). And, in my opinion, it necessitates a full revolution in all occupations, and it is dependent on the government," says the author. [25]. Based on the literature and data we reviewed, we believe that today's dramatic technological advancements will inevitably result in widespread change, accompanied by two types of strains: temporary strains, which characterise the transition phase from the current economy to a fully digital economy, and structural strains, which refer to endemic, long-term social issues that the digital economy is likely to cause. Different interventions are required for each type.

5. What is the Definition of a Job and How Can it be Automated?

Understanding the extent of this change and the solutions we propose necessitates a thorough understanding of job

automation. Understanding the types of tasks humans complete for each job and dividing them into a sequence of actions, and then estimating the level of automation that could be applied to each work, is a popular approach to this issue [26], Because a person's job usually includes several sorts of tasks, "the effect of technology on job design rests on a substitute-complement continuum," as Gibbs [27] put it. As a result, whether done at home or at work, the idea of automation can be applied to a complete job or merely to individual tasks within that employment [28,29]. Technology is threatening an unprecedented number of employments, including many skilled and non-manual jobs that were previously thought to be immune [30]. Routine and non-routine activities4 are examples of such tasks (Fig. 1). Until date, regular tasks (physical or cognitive) that are more easily mechanised have mostly replaced human labour. However, rapidly expanding AI technologies have begun to replace human labour, even for non-routine tasks (social and abstract), which were previously thought to be more difficult to automate [27,31–33]. The evidence now favours the replacement theory more than ever.

Because of its potentially enormous scope, the current development of automation is revolutionary. Automation today includes not only routine (physical and cognitive) but also non-routine jobs, allowing for the completion of various tasks and activities with little or no human intervention or oversight [29]. The rise of new computer technology that allows for the treatment of large amounts of data has opened the way for AI and machine learning as a main driver of automation [28]. Today's AI-enabled hardware allows robots to have delicate and significantly safer interactions with humans when working alongside humans [26]. Robots that provide personal care, for example, are service (social) robots that operate alongside humans. Hospitals all around the world have started to deploy and use robots to provide remote care and treatment to coronavirus patients, providing for continuity of care while also assuring the safety of medical and public health staff [34]. This type of robot has a significant chance of developing into self-contained devices that will eventually take over human labour. Alternatively, as Autor and Salomon [35] describe it, the new automation technologies are "labour displacing" since they "reduce labour's share of aggregate output.



6. Appreciation of Revolutionary Transformation:

Advanced economies are witnessing a significant surge of technological transformation that could have far-reaching social consequences. The fourth industrial revolution, which began in 2013, is currently affecting the global economy. The use of modern technology such as AI, robotics, and the internet of things to automate chores and occupations characterises this revolution. For the first time, machines (hardware and/or software-based) are becoming autonomous and capable of learning.

Prior to 2013, the goal of emerging technologies was to replace people, in contrast to past cycles of technical advancement in which technology was envisioned as supplementing people [26]. Since 2013, new technologies have been able to provide new "superhuman" capabilities that boost productivity, efficiency, and flexibility in ways that people cannot [26, 36, 37]. The result is that more human workers are replaceable, and hence retraining the workforce to adapt to new industrial processes is a far higher challenge [38]. We are in the midst of a severe structural-technological labour shortage: "this time, new emerging jobs may not be sufficient to compensate for occupations threatened by new technology" [28].

Some recent publications argue that augmentation is considerably more plausible than substantial job substitution due to technology [35, 39].

These research should be viewed with caution because the data was collected prior to 2007, when AI technology was not yet accessible for commercial usage and robots were more simpler than they are now [40][5].

7. Prognostications About Job Automation:

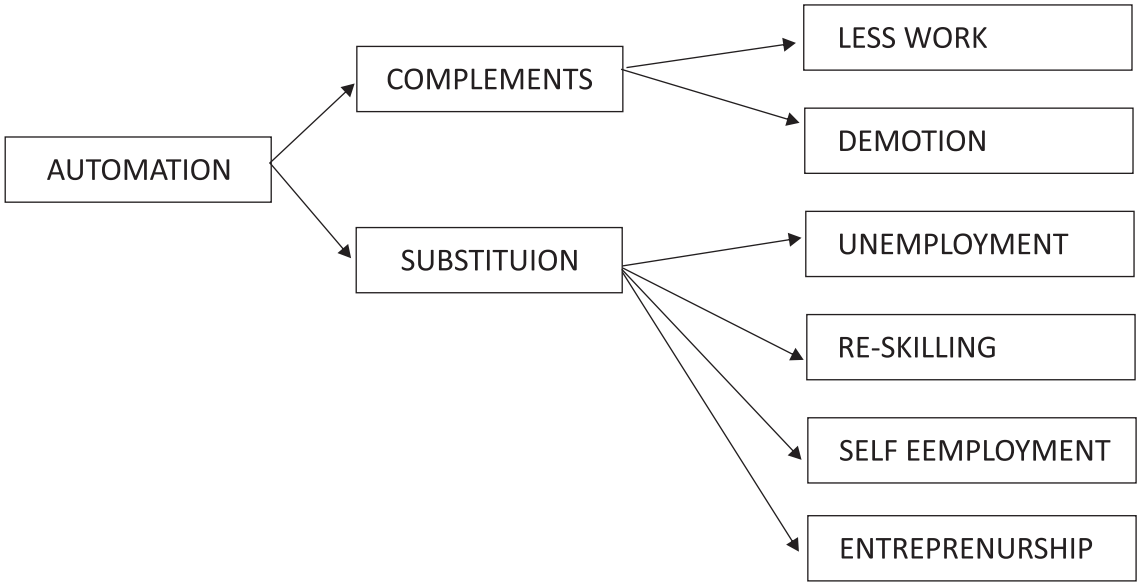
So far, we've looked at two competing perspectives on the impact of automation on jobs: job replacement and work augmentation. The replacement theory foresees "the collapse of the 'full employment' norm to which all developed economies have grown accustomed" (p. 12). "We are likely to confront severe instability as vocations and industries are disrupted all over the economy before the hoped-for 'new jobs' arrive in sufficient numbers," says the augmentation thesis (p. 11).

These diametrically opposed forecasts have spawned a plethora of studies examining the relative likelihood of human replacement or augmentation by automation. These studies cover the overall labour market, as well as individual segments or jobs within it. Frey and Osborne presented the first thorough assessment on the potential and likelihood of more than 700 different vocations being automated in 2013 [18]. Brandes and Wattenhofer [28] expanded on their work by examining the tasks that make up each job and evaluating the likelihood of each becoming automated. 6 Researchers used O*Net historical data from 2001 to 2015 to show that jobs with a high risk of automation had already begun to exhibit a reduction in demand for employment during this time [28,41]. This was also proven on a national basis [42,43], albeit with local variations.

Other studies have concentrated on specific fields and industries, whereas these two analyses provide a high-level assessment of the potential of automation. The most probable industries to be automated are those that produce mass quantities of goods, and their people are more likely to be replaced by AI-driven industrial robots [44]. On ocean rigs, the oil and gas industry has begun to deploy advanced automation technologies that decrease the need for human labour [45]. Knowledge workers (occupations that require a large amount of data) have a great potential for increased efficiency through AI, which would allow the automation of important regular procedures [46]. For example, AI and robots may be used to automate diagnosis, screening, and even counselling procedures in the medical and clinical fields. More than 64 AI solutions to assist physicians have already been approved by the US Food and Drug Administration [47]. Many tasks and tests in the medical imaging sector can be automated using AI for picture recognition (e.g., pathological testing) [46]. AI technologies have been employed to aid and supplement the job of public health experts and medical practitioners for screening and diagnosis as the COVID-19 epidemic has spread [48–50]. Other fields will be transformed by automation and AI, including the function of governance in organisations, particularly human resources, where AI and robotics may render human management supervision and guidance redundant, as well as the need for traditional human resource recruiting functions [51]. Another industry that could benefit from AI and robotics is banking, which could use it in a variety of occupations and roles, from call centres to front-desk tellers [52], with predictions that AI will replace 70% of front-office jobs (tellers, loan officers, customer service, and so on) by 2030 [53]. As a result, it appears that automation and AI will have a massive impact across numerous industries, and will likely reach domains that were previously thought to be immune. This will put entire populations' employment prospects at jeopardy.

8. The IR) Importance of Automation Education and Training:

LESS WORKEducation, training, and up skilling are often thought to be a panacea for the prospect of job loss brought on by technological advancements. A higher level of education and training is thought to be associated with a lower risk of long-term unemployment. Unskilled and low-skilled workers in industrial factories, according to this viewpoint, are more vulnerable to automation since the repetitive tasks they perform are the easiest to programme and automate using software or robots [26,54]. Furthermore, positions requiring advanced abilities are more difficult to automate than jobs requiring intermediate skills [27]. Not only does training matter for the types of people and their talents, but it also matters for the types of occupations. People who work in high-risk or low-risk jobs are more likely to gain new skills and training than those who work in medium-risk jobs, according to Sorgner [31]. These actions are taken by the former group as a self-preservation measure to lessen the likelihood of being replaced by automation. Soft talents that are harder to automate and more crucial for innovation (e.g., creativity, abstract thinking; see Fig. 2) are more prevalent among workers in low-risk jobs [33]. They are also inclined to experiment with self-employment and the entrepreneurial paradigm. To summarise, we still don't know what kind of education or training would be most effective in reducing the risk of automation7 Sorgner [31]. We may, nevertheless, conclude that positions with the lowest risk of automation are those that need "deductive thinking, originality, communication, training, problem-solving, and reading and writing" [27], as well as training humans to interact with and work alongside AI and robotics [33]. Nonetheless, as in the twentieth century [56]; pp. 153–168], education alone will likely cease to be the finest investment and the key to our social mobility.



9. Automation's Social Ramifications:

Due to improved technology that renders human labour superfluous, structural-technological unemployment is a persistent situation of a labour market that does not produce enough jobs to meet demand [56]; pp.112-131). Because labour has been a vital institution of modern civilization from the beginning, structural unemployment may be a threat to sophisticated societies. Work has characterised the modern human mentality in addition to providing for material subsistence [57]; pp. 677–680). According to deprivation theory, job is necessary not only for financial and survival purposes, but also for psychological and social functions such as a feeling of purpose, identity, social status, and the maintenance of social relationship [58, 59]. [1933] [60]. "First, employment imposes a time structure on the waking day; second, employment implies regularly shared experiences and contacts with people outside the nuclear family; third, employment connects individuals to goals and purposes that transcend their own; fourth, employment defines aspects of personal status and identity; and finally, employment enforces activity," [60]; p. 188). As a result, widespread job loss could have a variety of consequences for individuals and society as a whole. First and foremost, automation may reduce social mobility by causing people to be downgraded at their existing occupations or transferred to lower-level jobs in a different industry (Fig. 2) [31]. Furthermore, displaced workers may discover that retraining, re-skilling, and re-educating themselves in order to enter other industries requires time and money, which they may not be able to afford [51]. Increased physical and mental health concerns [61], loss of self-esteem and confidence in their professional abilities [62], as well as worse family connections and even family breakups [63,64], are all possible consequences of job loss. People who lose their jobs as a result of technological innovation may struggle to preserve their social position and self-worth while their possessions and income deteriorate [51]. Furthermore, Sorgner [31] dismisses the expectation that they will find new livelihoods, citing a huge increase in self-employment as a result of those who were replaced by automation starting their own businesses. These enterprises, on the other hand, are not growth-oriented and provide nothing in terms of employment, innovation, or market value [31]. Automation and AI have different consequences on different demographic groups, which could exacerbate social unrest. In general, technological innovation exacerbates inequality by displacing lower-skilled individuals and reducing demand for their services [32, 51, 65].

Escalating unemployment rates among the middle and lower classes have resulted in rising social and political instability, as shown in the 2016 US elections and Brexit in the United Kingdom [66]; p. 205; [67]. The "arguments for technological optimism do not work," according to a group of researchers from the International Monetary Fund, implying that the present wave of automation technologies would destroy more jobs than it creates [32]. As a result, we anticipate high rates of structural-technical unemployment (as opposed to the more common short-term frictional or cyclical unemployment [68]; pp. 4–8). As the possibility of humans losing their employment to automation rises, this threat is already being felt around the world, causing anxiety, distrust, and resentment [69]. So far, we've shown how AI and robotics could have a significant impact on the future of work and future generations' well-being. To round out our examination, we'll look at the two key forces that shape the labour market: employers and unions.

10. Employers' Desire To Automate Work:

Because employers have an incentive to do so, automation of production and service processes may triumph. "Companies could attain more profitability and sustainability only by following two options: lowering expenses or maximising value," writes Dirican [52]. The ultimate goal of employers is to lower the cost of each work while improving productivity [35]. As automation and AI grow more common, this conundrum may be resolved because AI and robotics are predicted to reduce costs while also increasing output. The financial crisis of 2008, for example, hastened the adoption of new technologies since businesses were forced to optimise and re-engineer their business processes in order to participate in the digital revolution [52]. Gutelius and Theodore [70] discovered that the US economy grew faster than the labour market after the Great Recession of the previous decade. Companies are motivated to save expenses in three ways. The first is to lower not only the need for workers who perform regular tasks, but also the number of highly skilled workers who are paid well [51]. The promise of decreasing costs associated with the employment cycle, such as searching for and recruiting new employees, or the shadow costs that result from labour costs being significantly higher than the actual compensation given to employees [26,27,51], is the second incentive.

The third motivation is to cut costs as a result of their human workers' "malfunctions" and limits. Machines do not go on strike or require managerial attention, despite the fact that they may break down and incur a large maintenance cost [27,51]. Industrial robots are built to be dependable and durable, allowing them to work continuously for 24 hours a day, seven days a week [36]. Automation eliminates practically all uncertainty and improves the end output by reducing differences in task performance that exist with human workers [27]. According to Qureshi and Syed [71], using robots can save employers up to 65 percent on labour expenditures while also allowing them to keep their businesses running without having to manage human shifts. They went on to say that robotics is playing an increasingly important role in the service industry, particularly in industries like healthcare, where employees who work in toxic surroundings may be replaced by robots who can perform the same jobs without the hazards to their health.

As a result, we argue that various streams of logic are driving companies to replace human work with robotic labour and AI.

11. Are Labour Unions A Viable Option?

Employers and employees have divergent interests, and "this relationship is inevitably hostile" [72]; p. 75). Since the dawn of industrial civilization, unions have been regarded as the primary defenders of workers' rights. Workers have used unionisation to strengthen their bargaining power with employers. The union movement's main purpose is to "organise workers for concerted action in support of their interests in order to redress the power imbalance between those who contribute labour and those who control the conditions of its use through their ownership or administration of productive resources." [72]; see also p. 75).

This comment illustrates three essential assumptions: (1) employees should organise in order to gain a better bargaining position with their employers, (2) the role of unions is reactive, and (3) workers cannot rely exclusively on their employers to advocate their interests, but must do so on their own. The primary aims of labour unions are to represent workers' economic interests and to express workers' views, thereby contributing to work democracy and justice [3]; pp. 35–57 [73]; p. 646). With time, they've broadened their responsibilities to encompass social services like pensions [74] and healthcare. As a result, their activities affect not only their own members but also all employees, as seen by their role in the institutionalisation of the minimum wage [75]; pp. 289–291). Unions have so served as more than a tool to represent the restricted economic interests of specific groups. They have influenced the entire economic system as a political force and an institutional player. As a result, individuals could have a big say in how the future labour market is designed. Unions have also shown that they are capable of responding to major economic shifts and delivering solutions for workers. They were powerful as long as they kept up with economic and institutional changes and offered solutions to their constituents. They were most successful as part of the bargaining tripartite process with employers' associations, which was sponsored by the state, from the 1930s to the 1970s. The role of unions in a "managed" or "organised" capitalism [1] was crucial. When unions ceased to be responsive, they also ceased to be relevant.

Since the 1970s, for example, unions have been unable to respond to rapid changes such as globalisation, the introduction of advanced technologies, labour market transformation [3]; pp. 81–93], or flexible employment arrangements [76]; pp. 175–177 [3,77,78]; pp. 3–6).

As a result, the ability of unions to adapt to changes and difficulties is critical to their survival. They have been pursuing "revitalization" and "renewal" tactics since the 1990s, owing to the lengthy crises they have been experiencing. 8 These included tactics such as recruiting new members, organising workplaces, internal restructuring, forming coalitions with other social movements, partnering with employers [79,80], and engaging in political action to influence higher power

centres (e.g., political parties, legislation, and state institutions) [81]; see p. 9. 10. However, such revival and regeneration measures are solely intended to address the problem of non-traditional employment and the gig economy. Among them include the cultivation of shared class consciousness among digital employees, the formation of a transnational digital workers' trade union, and the use of workers' online presence to protest against or even disrupt the operation of digital platforms [82]; pp. 155–156]. Opening unions to self-employed workers (a term that suits the legal status of individuals hired via platforms), forming a self-employed workers' union,11 legal help for non-organized workers are all other possibilities. Agenda-setting efforts that support workers' rights, as well as advocating for standard and fair workplace conditions [83].

Given the possibility of mass unemployment, one may legitimately anticipate scholarly literature to address the function of unions in the face of the ongoing and coming change. Unfortunately, there is no mention of this topic in the literature. We discovered no discussion of the role of unions in dealing with significant structural-technological unemployment in over fifty scientific studies dealing with automation and how it affects jobs. We didn't uncover anything on how unions deal with structural-technical employment in certain departments or industries, either. There is some literature on the effects of automation on labour relations in the 1950s, which is interesting. Ford Motor Company, for example, mechanised its manufacturing process to reduce its reliance on unionised workers who might strike. Another example is union employees' proposal to decrease the workday from eight to six hours due to concerns about widespread automation reducing the need for human labour [84]; pp. 112–113). Typically, unions regard the effects of automation and AI as a source of friction, with technology contributing to technological frictional unemployment (pp. 112–131), in which people are unable to re-enter the technologically evolving labour market because they lack the necessary skills. Unemployment, in this opinion, can be solved with the correct training programme and investment. The current literature on technology's impact on unions focuses on the rise of digital platforms and the gig economy [4,85–87], as well as the challenges it poses to unions' ability to mobilise platform workers [82,88,89]. The literature also examines how unions might use AI to reach out to marginalised employees, such as employing chat bots [90]. Finally, it discusses initiatives by workers within huge technological businesses to form unions. One of these is Amazon, particularly its warehouse workers, who are subjected to intense digital surveillance and poor working conditions [91]. The potential that manufacturing and service processes will require a substantially smaller workforce has been overlooked in the large literature about the emerging problems facing unions.

12. In the Face of a Jobless Economy, Unions Must Adapt.

If unions are to remain relevant, they must develop their strategic competence and recast themselves as learning organisations more than ever before [92]. Real learning is defined as the ability to break free from restrictive patterns [93], hence we propose that unions adopt a new paradigm and expand their mission beyond representing workers to include all people' economic and social rights. This transformation, however, can only happen gradually. We'll talk about two scenarios: the near future and the far future.

13. In The Foreseeable Future:

We urge that unions take the following seven steps in the near future:

1. Conducting research: This entails building or growing specialised research divisions to investigate the economy's increasing changes and trajectory. We urge that unions who currently have research departments use approaches like futurism and long-term planning, which are used by many organisations throughout the world today.

2. Technology experts on board: Unions should hire technological experts to their management teams in order to build a deeper and broader understanding of the possibilities presented by new technologies, rather than settling for general future scenarios. Recently, it was discovered that a lack of digital and technology understanding on corporate boards reduces the success of a company's digital strategy [94].

3. Encourage an augmented workforce: Unions should empower workers in industries where human labour is not totally replaced by automation. Unions should identify industries and jobs that are likely to remain dominated by human labour, organise unorganised employees, strengthen worker status, and improve working conditions.

4. Defend employee health, safety, and privacy in the age of AI: Unions should advocate for workers' rights to health, safety, and ethics in companies that are automating. Workers who use cutting-edge technologies in the office are likely to lose part, if not all, of their privacy while at work since they will be observed and monitored by a slew of sensors that collect data in order to improve and optimise their work [27]. The digital revolution will have an impact on these complex concerns, and workers cannot rely on their companies or state rules to protect their rights.

6. Managing dignified retirement: In workplaces where human labour is guaranteed to be replaced, unions must advocate for acceptable retirement circumstances for employees. In such circumstances, unions should redirect their bargaining efforts away from useless fights against dismissals and toward achieving the finest retirement compensation and retraining for workers to help them explore new career options. This is known as "outskilling," and it is a relatively new strategy that organisations throughout the world have begun to give to employees who "don't have a future at [the] company" [95].

7. Promote re-skilling and up skilling: This entails working with companies and governments to develop up skilling and re-skilling programmes for people whose jobs are at risk of being automated. The idea is to make it easier for them to be reassigned to industries and jobs that are less likely to be automated, or to promote their conversion to other roles with the same company.

8. Join ethical AI committees– nowadays, companies that are integrating AI into their processes and systems are encouraged to form ethical AI committees or construct an ethical AI framework based on their fundamental principles [96]. Unregulated AI implementation can result in well-known difficulties and hazards related to bias, fairness, liability, and privacy, among other things. According to Corrine Cath [97], "around the globe, industry representatives, governments, universities, and civil society are debating" this, but the unions are the only social actors that are not participating. As a result, they want to be a part of the discussion and consideration, while the main goal is to ensure that AI adoption does not jeopardise employees' rights or dignity, and that it is done ethically.

14. In The Far Future:

Unions can only maintain their relevance in the future, when a jobless society may become a reality, by adopting a new vision. They should shift their principal mission from representing employees to representing all citizens' social rights. Modern citizenship, according to Thomas Marshall, is built on three tiers of rights. The first is civil rights, which are mostly legal and protect individual freedoms such as freedom of expression and religion, as well as the right to own private property. The next set of rights is political rights, which provide the opportunity to elect and be elected to sovereign institutions that make key decisions. Finally, the most advanced layer is social rights. Citizens are provided with material security as a result of these measures. Everyone has the right to adequate nutrition, healthcare, education, transportation, and other services [98]. Political and social rights, among other things, have been obtained in the past as a result of pressure from worker groups, primarily organised workers. Unions in Scandinavian nations, for example, have not only helped to establish these rights, but they have also provided welfare benefits such as pensions and unemployment insurance [99,100]. These rights may be jeopardised if mass employment ends. A jobless society might deprive the working class of structural power, turning former employees into liabilities for companies and welfare expenditures for governments. Corporations are already pressuring governments to slash taxes, which could result in more cuts to welfare budgets and a widening of the already widening social class divide [101]. In this environment, the role of labour unions as representatives of laypeople's material interests is critical. They have the ability to organise and motivate individuals to promote critical solutions to the challenge of citizen material security. Many jobless persons will be exposed to the hazards of poverty if this is not done, and if no other institutional safeguards are in place.

In this scenario, unions should consider moving their primary focus from representing employees to wide social movements championing the following agenda:

- Unions should be open not only to employees and self-employed people, but also to individuals who are unemployed.

- Endorsing a broad, holistic economic perspective—the stakeholders' approach—that sees each economic operation as intertwined with its surroundings: investors, managers, workers, consumers, the local community, public health, the environment, and more. This perspective differs from the dominant shareholders' approach, which views shareholder revenue as the corporation's ultimate purpose [4,102].

- Instead of viewing workers as liabilities and seeking to reduce labour expenses by every means necessary, unions should emphasise the human contribution to the economy. Humans will continue to play important roles in the new economy, such as coming up with new ideas that AI can't yet implement and dealing with the moral aspects of material existence (see [103]; pp. 1–10).

- Act as lobbyists and advocate for Universal Basic Income (UBI) [107]; pp. 35–37 [108]; or other measures that would meet the citizens' basic requirements. As previously said, there are various barriers that must be solved before UBI may be implemented. The question of how to fund UBI once most people no longer work and hence pay no income tax is a major roadblock.

- Researchers from the International Monetary Fund recently suggested that taxing capital to pay employees'

UBI would be extremely difficult since it would have a detrimental impact on firms' strong returns on automation technology [32].

As a result, at the outset of the AI and automation revolution, unions have a new mission. Instead of putting out fires, they should take a proactive, strategic approach [92]; pp. 194–195). To develop each of the processes indicated herein, to examine future scenarios in specific sectors of the economy, and to analyse how these scenarios might affect employees and their representative unions, more research is required.

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The Influence of Organizational Justice on Organizational Politics: A Quantitative Study

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Abstract

There are many precursors to the perception of politics in an organization. This study aimed to test the influence of organizational justice on organizational politics empirically. Data were collected using standardized questionnaires from 150 non-executive employees from various organizations. For measurement, this study used Neuhoff & Moorman's (1993) scale for organizational justice and perceptions of politics scale by Kacmar & Carlson (1997). Confirmatory factor analysis was done to explore the validity and reliability of the standardized tools. Multiple regression analysis was used to examine the possible relationship between the variables. The influence of interactional and distributive justice on the dimensions of organizational politics was empirically tested in this research. The present study's findings provide insight for managers on the benefits of instigating the culture of justice in organizations and overcoming the barriers of politics and power.

Keywords: *organizational justice, organizational politics, distributive justice, interactional justice*

Introduction

To cultivate and sustain an autonomous workforce and promote teamwork and organizational development, organizations must transmit a sense of justice to their employees (Cropanzano & Kacmar, 1995) and abstain from negative politics. Literature reveals that organizational justice is linked to positive organizational consequences such as trust (Chen et al., 2015), job satisfaction (Al Zu'bi, 2010), organizational citizenship behavior, and work performance (Wang et al., 2010). In contrast, organizational politics negatively impacts employees, leading to low job performance and organizational commitment (Drory, 1993; Ferris et al., 1989; Gotsis & Kortezi, 2010). The arguments on the potential of political capabilities to reinforce individual and organizational growth and success (Ladebo, 2006; Vredenburgh & Shea-VanFossen, 2010) are also found in academic writings. The interaction of organizational justice and politics are complex, and often contradictory interpretations are found within the literature attempting to explore their relationship.

Organizational Justice

The concept of organizational justice relates to employees' perception of a fair work environment, their understanding of being treated fairly at the workplace, and the role of fairness in determining organizational outcomes (Greenberg, 1990; Moorman, 1991; Alsalem & Alhaini, 2007). Employees' perception of fairness is critically significant for organizations as it determines their future possibilities of attitudes and behaviors at the workplace; for example, if employees perceive their work environment as fair, they are inclined to be more committed (Cropanzano & Ambrose, 2001; Lind & Tyler, 1988, 1992). The concept of organizational justice stems from equity theory (Adams, 1963, 1965), which explains the relationship between the employees' perception of the work environment and their motivation to work (Ogolo, 2016). The equity ratio, which is the ratio of the person's inputs (like expertise and efforts) with the outputs (like pay and promotion) (Adams, 1963; Ogolo, 2016), determines whether an employee would perceive the workplace as equitable or inequitable. Further, employees also look for a balance between their output/input ratio with the output/input ratio of others of comparable levels or with the standard reference person or a group (Pritchard, 1969). An equitable and just perception of the workplace influence employees' behavior towards the organization.

The capability of organizational justice is well established, and its relation with various job-related attitudes, such as job satisfaction (Greenberg, 1987; Colquitt et al., 2001; Usmani &

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Jamal, 2013), organizational citizenship behavior (Greenberg, 1987; Karriker & Williams, 2009; Gurbez et al., 2016; Özbek et al., 2016), work commitments (Colquitt et al., 2001), trust and work performance (Colquitt et al., 2001; Köse, 2014) is evident in research. Organizational justice has been found to be positively associated with employees' well-being (Kivimaki et al., 2004) and negatively correlated with work stress, counterproductive work behaviors, and turnover intentions (Cohen-Charash & Spector, 2001; Rupp et al., 2014).

Various models of organizational justice are found in studies. Traditional research on organizational justice established a two-factor model with distinct constructs of distributive and procedural justice (Folger, 1986; Cropanzano & Ambrose, 2001). Further work in this area gave the three-factor model and included the additional dimension of interactional justice (Bies & Moag, 1986). Due to ambiguity and overlap between procedural and interactional justice (Colquitt et al., 2001; Cropanzano & Greenberg, 1997; Greenberg, 1990), another classification of justice was proposed. This has four categories- systemic (structural/procedure), informational (social/procedure), configurable (structural/distributive) and interpersonal justice (social/distributive) (Greenberg, 1993; Cropanzano & Ambrose, 2001). This framework includes structural and social elements with distributive and procedural justice (Greenberg, 1993). The three-factor model of organizational justice is used in the present research comprising distributive justice, procedural justice, and interactional justice.

Distributive justice refers to the perception of fairness in the allocation of resources (Kulik & Ambrose, 1992; Stepina & Perrewe, 1991; Moorman, 1991), and distributive injustice means a deviation from the equity rule where employees feel that the distribution of work and rewards are not fair in comparison with the co-workers (Ambrose, Harland & Kulik, 1991; Cropanzano & Folger, 1989; Greenberg, 1987). Distributive justice is evaluated in terms of the extent to which outcomes such as wages, promotions, and work positions are dispensed fairly to the employees (Colquitt et al., 2001). Three allocation rules- equality, equity, and need are considered significant under this dimension (Deutsch, 1985; Kabanoff, 1991; Cropanzano, et al., 2007).

Procedural justice means adherence to rules, regulations, and fair processes in allocating resources (Leventhal, 1980; Cropanzano, et al., 2007; Cropanzano & Ambrose, 2001). The emphasis is on the prominence of the rightfulness of the methods used at the workplace (Thibaut & Walker, 1975; Folger & Konovsky, 1989 & Greenberg, 1990). Two frameworks of procedural justice, namely, instrumental and relational models, have been widely accepted in theory. The instrumental model suggests that procedures providing economic benefits should be perceived as fair (Greenberg, 1990; Lind & Tyler, 1988; Shapiro, 1993). The relational model states that fairness should be perceived for socio-emotional benefits like status recognition, self-esteem, and lack of bias (Lind, 1995; Cropanzano & Ambrose, 2001; Lind & Tyler, 1988). Besides, consistency, lack of bias, accuracy, representation of all concerned, and consistency with ethical norms have been well established as the fundamental hallmarks of procedural justice (Leventhal, Karuza & Fry, 1980). Procedural justice has been found to be positively associated with the enhancement of employees' psychological well-being, life satisfaction (Elovainio, Kivimaki & Vahtera, 2002), work commitment (Elovainio, Kivimaki & Vahtera, 2002; Cropanzano et al., 2002), trust (Cropanzano et al., 2002), and engagement with work (Kim & Park, 2017).

The third dimension of interactional justice is distinct from the concepts of distributive and procedural justice as it goes beyond the fairness of job outcomes and organizational procedures (Bies & Moag, 1986). There is some vagueness regarding the concept, and it has been considered a social aspect of procedural justice by some researchers (Tyler & Bies, 1990; Cropanzano & Greenberg, 1997; Folger & Bies, 1989; Greenberg, 1990). Interactional justice is the nature and quality of interpersonal treatment employees receive at the workplace (Bies & Sitkin, 1992; Tyler & Bies, 1990). It has been appraised as an inner asset for workers (Gillet et al., 2015), having a significant positive influence on organizational citizenship behavior (Taamneh, 2015) and knowledge sharing behavior, both at the individual and the team levels (Li et al., 2017).

Organizational Politics

Organizational politics is a broad term characterized as deliberate actions, influences, and tactics in the workplace intended to expand one's interest (Ferris, Russ, & Fandt, 1989; Mintzberg, 1983; Pfeffer, 1992). Literature regarding politics in organizations largely addresses the perception of politics as it has been suggested that people act upon their perception of reality instead of the actual reality, and hence the same aspect of organizational politics might be perceived differently by different people (Lewin, 1936; Ferris et al., 2002; Gandz & Murray, 1980; Kacmar & Ferris, 1991). Consistent with these findings, it was suggested that perception of organizational politics rather than the actual political atmosphere is a better measure (Ferris & Kacmar, 1992). Measuring perceptions of politics is considered to have certain benefits. It can be more conveniently measured than the actual political behavior, and as people act upon their perceptions, it is supposed to be having more influence on people's intentions and behaviors (Vigoda, Vinarski & Ben, 2003).

A variety of studies indicate that organizational politics is an essential precursor of both formal and informal performance of the employees (Adams et al., 2002; Ferris & Kacmar, 1992;

Gandz & Murray, 1980; Kacmar & Baron, 1999; O'Connor & Morrison, 2001; Valle & Perrewe, 2000). Many of these studies rely on defining organizational politics as a well-planned and thoughtful behavior intended to augment self-interests (Ferris et al., 1989) and create discord with the collective goals of the organization or the interests of other individuals. It is regarded as a game of power and influence strategies for attaining the best possible outcome for oneself (Kipnis et al., 1980; Pfeffer, 1992).

The present study used the three-dimensional model of organizational politics comprising of general political behavior (GPB), go along to get ahead (GAGA), and pay and promotion policies (PPP) (Ferris, Russ, & Fandt, 1989). GPB politics is the overall political behavior of employees and how they work for themselves to secure a valuable outcome in the organization (Gull & Aylia, 2012). Politics in organizations involving the 'go along to get ahead' dimension shows how employees become inactive, use silence, and apply prudent measures to gain personal advantage and evade conflicts (Gull & Aylia, 2012). Pay and promotion policy refers to politics that exist in the policies entailing pay and promotion, performance appraisal, and related areas (Gull & Aylia, 2012).

The phenomenon of organizational politics is one of the major hindrances to the optimal performance of organizations (Vigoda, 2000; Kacmar & Baron, 1999). Literature suggests that the perception of organizational politics have a negative impact on both employees and the work environment (Ferris, Russ, & Fandt, 1989; Ferris et al., 2002; Kacmar & Baron, 1999; Mayes & Allen, 1977; Porter, Allen, & Angle, 1981). However, recognizing that politics is so widespread and inevitable in organizations (Pfeffer, 1992), researchers have lately started considering a broader perspective that centers on the positive aspects of politics (Albrecht & Landells, 2012; Hochwarter, 2012).

The present study tried to understand the significance and role of organizational justice in employees' perception of political behavior at the workplace. The perception of organizational justice positively relates to satisfaction with the job, supervisor, and work environment (Fedor et al., 2008). It facilitates a rewarding culture where employees are more likely to be seen as driven and motivated (Simmons, 2009). Organizational justice influences organizational politics, especially when it is associated with the work protocols practiced by employers (Folger & Knovsky, 1989) and with the increment and promotion processes in the workplace (Greenberg, 1986). A fair and just workplace is strategically vital for a corporate entity because the political perception is low if employees perceive a high prevalence of justice (Cropanzano et al.,1997; Harris et al., 2001). Further, the perception of justice also removes adverse outcomes of organizational politics (Byrne, 2005).

To examine the impact of organizational justice on organizational politics and to explore the nature of the relationship between these two important organizational constructs, the following hypotheses were formulated:

H1: Procedural justice will have a significant effect on the 'general political behavior' dimension of organizational politics.

H2: Procedural justice will have a significant effect on the 'go along to get ahead' dimension of organizational politics.

H3: Procedural justice will have a significant effect on the 'pay and promotion policies' dimension of organizational politics.

H4: Interactional justice will have a significant effect on the 'general political behavior' dimension of organizational politics.

H5: Interactional justice will have a significant effect on the 'go along to get ahead' dimension of organizational politics.

H6: Interactional justice will have a significant effect on the 'pay and promotion policies ' dimension of organizational politics.

H7: Distributive justice will have a significant effect on the 'general political behavior' dimension of organizational politics.

H8: Distributive justice will have a significant effect on the 'go along to get ahead' dimension of organizational politics.

H9: Distributive justice will have a significant effect on the 'pay and promotion policies' dimension of organizational politics.

METHOD

Participants

The sample for this study comprised of 150 non-executive employees of various

organizations. This study is descriptive and standardized tools were used to collect the data.

APPENDIX

Table 1

Sample characteristics: Frequency and percentage of demographics (n=150)

Variables		f	%
Age (years)	25-30	81	54
	30-35	32	21.3
	35-40	17	11.3
	40-45	20	13.3
Gender	Female	56	37.3
	Male	94	62.7
Tenure in the	05-Oct	117	78
organization	Oct-15	19	12.7
(years)	15-20	8	5.3
	20-25	6	4
Educational	Graduation	71	47.3
qualifications	Post-graduation/MBA	70	46.7
	PhD/M.Phil.	7	4.7
	Others	2	1.3

Table 1 presents the profile of respondents. Out of 150 respondents, 81 participants were in the age group of 25-30 years (54%), 32 were between 30-35 years (21.3%), 17 participants were between 35-40 years (11.3%), and 20 participants were between 40-45 years (13.3%). Fifty-six participants were female (37.3%), and 94 were males (62.7%). Regarding respondents' tenure in organizations, 117 participants were under the category of 5-10 years (78%), 19 were under 10-15 years (12.7%), 8 were under 15-20 years (5.3%), and 6 were under 20-25 years (4%). Further, 71 participants were graduates (47.3%), 70 held post-graduation/MBA degree (46.7%), 7 had PhD/M.Phil. Degrees (4.7%) and 2 participants had other educational degrees (1.3%).

Measures

1. Organizational Justice: For measurement, this study has taken a 20-item scale of Organizational justice (measuring distributive, procedural, and interactional justice) by Neuhoff & Moorman, 1993. Respondents indicated the extent of their agreement or disagreement with each item on a scale from 1 (strongly disagree) to 5 (strongly agree). One of the items is negatively coded in the scale. In order to explore the validity and reliability of the scale, the study employed confirmatory factor analysis. The indices for organizational justice scale were acceptable ($\chi 2/df$ = 1.820, RMSEA = 0.074, CFI = 0.91, GFI = 0.84, AGFI = 0.80, IFI = 0.91). The use of Construct Reliability (CR) was proposed in conjunction with structural equation modeling models, rather than the traditional coefficient alpha (Hair et al., 2006). The composite reliability of the scale was found to be 0.90 (> 0.70) with AVE 0.76 (> 0.50) and CR >AVE (0.90 > 0.76). Second-order convergent validity for organizational justice was found to be as CR >AVE, 0.905 > 0.761.

2. Perception of organizational politics (POPS)- Perception of organizational politics was measured using the perceptions of politics scale (Kacmar & Carlson, 1997). Respondents were asked to assess the extent to which they view their working environment as political on a scale ranging from 1= 'strongly disagree' to 5= 'strongly agree'. The 12- item scale tends to capture three dimensions of POPS - (a) individual's general political behavior (GPB), (b) go along to go ahead (GAGA), and (c) pay and promotion policies (PPP). The scale items are positively coded for the GPB dimension and negatively coded for GAGA and PPP dimensions. Thus, higher scores on the scale mean high general political behavior and fewer politics in the dimensions of 'go along to go ahead' and 'pay and promotion policies'. Fit indices for organizational politics scale were determined using CFA ($\chi 2/df$ = 1.922 <3, RMSEA = 0.079, CFI = 0.90, GFI = 0.91, AGFI = 0.86, IFI = 0.90). The composite reliability of the scale was found to be 0.73 (> 0.70) with AVE 0.53 (> 0.50) and CR >AVE (0.73 > 0.53). CR is near to 0.70 for two dimensions- GPB and GAGA and is greater than 0.70 in PPP. Second-order convergent validity for organizational politics with CR > AVE; 0.73 > 0.53.

Analyses

IBM SPSS & AMOS Statistics software (version 25.0) was used to analyze the data. Descriptive statistical analyses were conducted to find the frequencies and percentages of the participants' demographic details. Pearson's product-moment correlational analysis was done to find the correlation between organizational justice and organizational politics and their sub-dimensions. Confirmatory factor analysis was employed to explore the internal reliability and validity of scales. Overall, the scales were found to be reliable and valid. To test the proposed hypotheses, multiple regression analysis was performed to assess the impact of the dimensions of organizational justice on the components of organizational politics (general political behavior, go along to get ahead, and pay and promotion policies). The statistical assumptions for the model (normality, linearity, absence of multicollinearity) were all met.

RESULTS

Table 2 reports the Pearson's product coefficients between all the variables of current study. It indicates that there exists a significant negative correlation between general political behavior dimension of organizational politics and organizational justice (r= -.264, p< 0.01) and its sub-dimensions: distributive justice (r= -.236, p<0.05), procedural justice (r= -.191, p<0.01), interactional justice (r= -.255, p<0.01). Results found a significant positive correlation between 'go along to get ahead' dimension of organizational politics and organizational justice (r=.630, p< 0.01) and its sub-dimensions: distributive justice (r= .515, p<0.05), procedural justice (r= .489, p<0.01), interactional justice (r= .616, p<0.01). It is also indicated that there exists a significant positive correlation between 'pay and promotion policies' dimension of organizational politics and organizational justice (r=.624, p< 0.01) and its sub-dimensions: distributive justice (r= .478, p<0.05), procedural justice (r= .427, p<0.01), interactional justice (r= .660, p<0.01).

Table 2

Pearson correlation between organizational justice and organizational politics and their dimensions (n=150)

	General political behavior	Go along to get ahead	Pay and promotion policies
Distributive justice	-.236**	.515**	.478**
Procedural justice	-.191*	.489**	.427**
Interactional justice	-.255**	.616**	.660**
Organizational justice	-.264**	.630**	.624**

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

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

Multiple regression analysis was done to explore the causal effect of distributive justice, procedural justice, and interactional justice on dimensions of employees' perception of organizational politics. The influence of three types of organizational justice was tested separately on three dimensions of organizational politics (general political behavior, go along to get ahead, and pay and promotion policies). The results in Table 3 show that the selected independent variables explained 7.4 percent of the variance in general political behavior, 40.5% variance in go along to get ahead, and 44.5 percent of variance with pay and promotion policies dimensions. The analysis of variance (ANOVA) of multiple regressions was significant in all three models, though the percentage of variance was low for the dimension of general political behavior.

Table 3

Model Summary: Regression analysis of organizational justice on organizational politics (n=150)

Dependent Variable	Argument	Beta	p-value	R	R2	R2adj	F
General political behavior	Distributive Justice	-0.123	0.247	0.272	0.074	0.055	3.878**
	Procedural Justice	0.004	0.975				
	Interactional Justice	-0.178	0.158				
Go along to get ahead	Distributive Justice	0.189	.028*	0.637	0.405	0.393	33.159**
	Procedural Justice	0.068	0.464				
	Interactional Justice	0.446	.000**				
Pay and promotion	Distributive Justice	0.106	0.2	0.667	0.445	0.434	39.044**
	Procedural Justice	-0.105	0.241				
	Interactional Justice	0.666	.000**				

** Significance at < 0.01 level.

* Significance at < 0.05 level.

The value of beta coefficients was calculated to test the functional relationships between independent and dependent variables. The results revealed that all three predictor variables had an insignificant impact on the general political behavior of employees. Further, distributive and interactional justice had a positive and significant influence on go along to get ahead dimension of organizational politics (Distributive justice: $\beta = 0.189$, $p < 0.005$, $R^2 = 0.405$ and Interactional justice: $\beta = 0.446$, $p < 0.001$, $R^2 = 0.405$). Interactional justice also had a positive and significant impact on the pay and promotion policies dimension ($\beta = 0.66$, $p < 0.001$, $R^2 = 0.445$). Thus, the results are consistent with the proposed H_5, H_6, and H_8. Overall, the results show that the interactional justice has the greatest influence on the employees' go along to get ahead and pay and performance policies of the organization.

DISCUSSION

The purpose of the current study was to explore the effects of organizational justice on organizational politics. Data were collected using standardized questionnaires from 150 randomly selected non-executive employees from various organizations.

Multiple regression analysis results indicate that interactional justice is a significant predictor of the 'pay and promotion policies' sub-dimension of organizational politics as it has the highest **β** value of 0.66. Interactional justice is also a significant predictor of the 'go along to get ahead' dimension with **β** = 0.44. It means that when employees receive quality exchange in terms of relationship and information from their employers/organization, there is a less likelihood of perceptions amongst the employees of the existence of political actions in the organization, especially concerning silent measures with the intent to achieve benefits in the exchange of organizational policies. The dimension of distributive justice also emerged as a significant predictor of the 'go along to get ahead' dimension with the **β** value of 0.18. It depicts that fair resource allocation practices within an organization will result in less occurrence of silent and discrete political actions by the employees.

In order to understand the predictive role of interactional and distributive justice on GAGA, it will be good to understand how politics at the workplace is expressed through this dimension. People indulging in go along to get ahead politics avoid conflict to gain some benefits (Gull & Aylia, 2012). Such people, at times, end up silently following the authority or influential figures in an organization, which not only appears to be a non-political behavior but rather seen as a sense of commitment towards the organization. A person's intent is also significant in expressing such political behavior (Frost, 1987; Drory & Romm, 1990). Lack of action or going along to get ahead can be a reasonable and profitable approach to pursue one's self-interest when working in a political environment. If an individual's silent behavior is non-threatening to others, then it may be considered non-political. Also, a person going along with the organization's decisions is not viewed as a possible threat by those acting politically. Such a person is welcomed by the political group and is rewarded for not interfering in the affairs of the politically motivated group.

The possible explanation behind our findings concerning the predictive impact of two sub-dimensions of organizational justice on 'go along to get ahead' could be that when justice is well-practiced in an organization, there will be less likelihood of people to indulge in such silent actions. When the employers/organization is not politically motivated, then people with such intent will not have a place to be welcomed. When management follows a transparent culture with a free flow of information, and everyone gets fair explanations of decisions, employees have less perception of politics. It fosters trust, dignity, and respect among stakeholders in the organization. Effective interpersonal communication enhances the perceptions of interpersonal and informational justice. Further, a fair and equitable approach in distributing rewards, benefits, and resources reduces employees' negative reactions. Workplace fairness enhances employee morale, engagement, and commitment to the work. Thus, ensuring interactional and distributive justice must be a priority for organizations to inculcate a productive and healthy culture.

Next, results suggest that interactional justice is a significant predictor of organizational politics's 'pay and promotion' sub-dimension. The dimension of pay and promotion involves the way organizations reward employees and hence, are seen as exhibiting political or non-political behavior (Ferris et al., 1989; Ferris & King, 1991; Kacmar & Ferris, 1993). The findings suggest that if employees are given complete information about organization policies related to pay, rewards, promotion, etc., they are more likely to perceive a just and fair workplace. Contrary to this, inadequate or spurious information is more likely to make employees perceive their organization as a hotspot for political behavior indulging in nepotism or favoritism. Managers should cultivate open communication channels with employees as it builds trust. Employees are more likely to stick to the organization and show greater loyalty towards their work. The results are in line with the previous studies that lack of association between employee and management and absence of fair rules, regulations, and policies will upsurge the levels of organizational politics. Further, organizational justice holds the potential to influence the political behavior related to work procedures practiced by employers (Drory & Romm, 1990; Fandt & Ferris, 1990; Folger & Knovsky, 1989).

Results from Pearson-moment product correlational analysis showed that the sub-dimensions of organizational justice were negatively related to the 'general political behavior' sub-dimension of organizational politics. This dimension of organizational politics represents employees' political and self-serving behavior to obtain valued outcomes (Kacmar et al., 1991; Madison et al., 1980). Though regression analysis did not confirm the predictive relationship between the variables, correlation findings suggest that as organizational justice is enhanced within the workplace, employees' negative perception towards the general organizational politics decreases. It is in line with previous findings that when justice is practiced in the organization with transparent and fair procedures, instructions, communication, and resource distribution, employees avoid working for self-interest (Cheong, 2010; Muhammad, 2007; Adams et al., 2008); hence reducing

the uncertainty and occurrence of politics in the organization (Vigoda & Cohen, 2002). Thus, procedural, distributive, and interactional justice can counter negative perceptions about organizational politics, with distributive justice having the strongest influence (Harris et al., 2007).

There were some limitations of this study. Both the questionnaires used in the study were self-reports which might have resulted in biased responses. In addition, the data was collected from a heterogeneous sample which may have influenced the generalizability of the findings. Despite these limitations, present research contributes to existing literature. The findings of our study could be practically implemented in the workplace by establishing fair practices to create a less political environment that contributes to significant positive outcomes from the employees. Future studies can examine the factors that mediate between the two variables.

Conclusion

The present study investigated the effects of organizational justice on organizational politics. Multiple regression analysis suggested that interactional justice significantly affected 'go along to get ahead' and 'pay and promotion policies' dimensions. Distributive justice had a significant effect on the 'go along to get ahead' dimension of organizational politics.

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