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CONTENTS

1. *The Impact of Work-family Conflict on Psychological Health, Work Stress & the Turnover Intentions Among Frontline Nurses against Covid-19 Diseases*
Seyyed Jafar Zonoozi & Meysam Jafari.....1-24
2. *Impact of Dividend and Leverage on Free Cash Flow in the Context of Agency Problem: Evidence from Pakistan*
Huzaiifa Jabbar Chauhan & Zia-ur-Rehman Rao.....25-35
3. *An Empirical Study on Personal Factors of Employee Engagement in BPO Industry*
Nishu Sharma & Padma Mishra.....36-52
4. *Finding out those Factors which Promote Emotional Brandings in Relation to Textile Outlets: Multiple Group Path Analysis Approach*
V.Tamilarasu.....53-62
5. *Digital Fatigue among Students in Current Covid-19 Pandemic: A Study of Higher Education*
Rajani Kumar Sarangal & Meenakshi Nargotra.....63-71
6. *Emerging Market & Mobile Technology Usage: Evaluating Intention to use Mobile Banking in India*
Junaaid Hassan & Fayaz Ahmad Nika.....72-90
7. *Impact of Trust, Service Quality, Satisfaction on Loyalty: Mediating Role of Image for the Relationship Between Satisfaction and Loyalty in the Indian Hotel Industry*
Vikash, Neeraj Kaushik & Pooja Goel.....91-100
8. *The Role of Foreign Direct Investment in the Relationship Between Global Innovation Index and Gross Domestic Product*
Murat Cemberci, Mustafa Emre Civelek & Perlin Naz Comert.....101-111



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The impact of Work-Family Conflict on Psychological Health, Work Stress, and the Turnover Intentions among frontline Nurses against Covid 19 Disease

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The impact of Work-Family Conflict on Psychological Health
1

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Abstract

Objective: COVID-19 has caused an unprecedented crisis in the occupational field and affected various aspects of frontline nurses' working and personal lives. Considering that most studies on work-family conflict and its effects examine individualistic societies, the purpose of this study is to examine the effect of work-family conflict on the turnover intention of nurses in Iran mediated by psychological health and workplace stress.

Methodology/ approach: The major research strategy is quantitative, and the primary technique is descriptive-survey analytical. This study examined 274 Covid19 frontline nurses in Iran. Data collected with a five-point Likert scale questionnaire. Confirmatory factor analysis and structural model measurement performed using SEM AMOS 24 software.

Findings: The results of data analysis show that work-family conflict negatively affects psychological health while positively affects workplace stress. As well, psychological health reduces the tendency to turnover, while work stress increases turnover intention. The Variables Mediation test found that work-family conflict has an indirect effect on turnover intention. This study helped to comprehend work-family conflict, psychological issues of nurses, and therefore their turnover intention.

Practical Implication: Because of the importance of family foundation and the Islamic context, researchers recommend that the health care system devote more attention to nurses' psychological health and personal life during the COVID-19 pandemic. These measures result in a compromise between work and family, resulting in reduced work stress, reduced turnover, and improved psychological well-being.

Originality/ Value: It is vital to investigate the consequences of work and personal conflicts of nurses and psychological injuries that threaten people's occupation during COVID-19. The present study is the first research on work-family conflict and its consequences in the COVID-19 crisis in Iran.

Keywords: work-family conflict, psychological health, Workplace stress, Turnover intention, Covid 19

1. Introduction

COVID-19 has an unprecedented impact on occupations, the economy, and personal lives around the globe. The exponential effects of this new virus have resulted in job losses, uncomfortable living conditions, and sudden deaths (WHO, 2020). Nurses are the most crucial part of the workforce; they describe as the main base of healthcare systems that play a crucial role in developing actions and preserving the core values of healthcare systems worldwide (Jackson et al., 2020). Also, nurses always played a crucial role in accidents and emergencies, including the prevalence of epidemics (Mo et al., 2020; Catton, 2020). In working with patients who have COVID-19, nurses experience many physical and mental problems, including social isolation, role conflicts, fear and anxiety, and significant psychological distress (Chen et al., 2020). For people experiencing high-life conflicts, their job role prevents them from concentrating on essential things in their family or personal lives. They do not have enough time or energy for essential people in their lives because of their occupation (Schieman et al., 2021). A conflict between work and family is one form of inter-role conflict,



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which means pressure or imbalance between work and family roles. High working hours and heavy responsibilities due to spending too much time and effort to work are a direct sign of work-family conflict (Beutell & Greenhaus, 1985). One of the main factors creating different job attitudes and outcomes such as job satisfaction, organizational commitment, job involvement, job engagement, organizational citizenship behavior, and performance levels are the ineffective combination of job and family roles (Cooklin et al., 2014; Mauna et al., 2015; Rubel et al., 2017). Workplace factors such as working hours, overtime requirements, inflexible Work schedules, different coworkers, and incompatible organizational culture lead to work-family conflict (Aboobaker & Edward, 2019). Work-family conflict is associated with increased job stress and occupational burnout, the intention to abandon the organization, reduced health, and job performance, high absenteeism, decreased work commitment, reduced psychological health, increased parental conflict, and marital problems (Voydanoff, 2015; Dettmers, 2016; Aboobaker & Edward, 2017). Alternatively, excellent adaptation between work and family motivates people and brings a high sense of success at work (Baeriswyl et al., 2016). The 19-COVID pandemic significantly affected nurses' mental health and job performance (Khattak et al., 2020). An exponential increase in the number of patients with COVID-19 has increased healthcare workers' workload who are now working 24 hours a day (Lucchini et al., 2020). The increasing mortality rate among healthcare workers caring for 19-COVID patients has created many psychological challenges. Excessive working hours, far from family, and uncertainty in these new conditions significantly impact nurse's performance and psychological health (Zhang et al., 2020; De Los Santos & Labrague, 2021). Nurses' exposure to workplaces with high job demands and low resources can lead to higher job stress and physical and mental stress that can affect their physical and mental health (Chou et al., 2014; Khamisa et al., 2015; Malinauskiene et al., 2011). Stress in the workplace can have profound adverse effects on nurse health and performance (Foster et al., 2020). During an epidemic crisis, severity, mortality, and sensitivity to the disease can cause anxiety and fear in nurses or exacerbate it, potentially affecting their health, well-being, and effectiveness at work (Ahorsu et al., 2020). According to the RCN (Royal College of Nursing in England) report, nurses feel ignored by employers when they raise concerns about their mental health (Mitchell, 2019). Researchers consistently challenge the focus on personal responsibility for mental health and well-being and overemphasize nurses' resilience faced with labor shortages and extreme emotional pressures (Traynor, 2018). Some nurses rethink continuing their careers due to the perceived risk, psychological pressure, and helplessness they felt (Ranney et al., 2020). Turnover intention is not only a warning signal for employees who are about to leave the company, but it is a factor that can effectively predict changes in employees within the organization and job positions (Brown & Peterson, 1993). The turnover intention is a significant predictor of the actual rate of voluntary turnover. Alternatively, it is much easier to express turnover intention than perform it (Park & Min, 2020). Anderson et al. (2002) found that the work-family conflict positively influences the employee's turnover intention. If employees fail to balance work and family, then employees tend to turnover (Anderson et al., 2002). Yildiz et al (2021) stated that work-family conflict in nurses is an important factor in increasing turnover intention. Therefore, managers must take the conflicts between work and family more seriously and take the necessary measures (Yildiz et al, 2021). Yorulmaz and Sevinc (2021) found that psychological resilience regulates the relationship between work and family conflict and turnover intention (Yorulmaz and Sevinc, 2021). We assess the impact of work-family conflict on work stress, psychological health, and ultimately turnover intention in the context of a collective society. In this field, most studies to date examined individualistic Western societies. The empirical study of nurses from the perspective of Islamic culture is a significant innovation in this research. In societies with strong traditions of marital commitment, the effect of work-family conflict is different (Liu et al., 2016). We must understand these cultures in terms of family commitment, where employees feel more tired and unable to cope with stress (Brough and O'Driscoll, 2005; Sun and Pan, 2008). Few studies have focused on working life and challenges associated with the COVID-19 crisis among nurses in Iran. On the other hand, several reports indicate that severe job conditions and personal problems have contributed to nurses' turnover. Given the importance of family

foundation in Iran and the necessity of paying attention to this issue, this study examines the effect of work-family conflict on the turnover intention with the mediation effect of psychological health and work stress among COVID-19 frontline nurses.

2.Literature review and conceptual model

2.1The relationship between work-family conflict and psychological health

The most significant challenge in societies is the management of work-family relationships. The work-family relationship defines as the interdependence between the family and the field of work. Work-family conflict occurs when they negatively impact each other (Molina, 2020). The work-family conflict is a kind of interpersonal conflict that occurs when working and family pressures are incompatible (Mauno et al., 2015). Deciding on critical family issues (For example, deciding whether one partner should accept the new job or the consort's promotion, which requires family relocation) or simple everyday decisions (For example, which should leave work to pick up the kid from school) can lead to work-family conflict. Work-family conflict is a psychological phenomenon that causes imbalances between work and life at home (Csikszentmihalyi, 2003). According to Jerg-Bretzke et al. (2020), work-family conflict affects employees' mental and physical health. The measure should design to improve employees' work-family balance and improve their physical and mental health (JergBretzke et al., 2020). Conflicts between work and personal life are of high social significance as they are associated with adverse physical and mental health (Molina, 2020). Negative work-family interaction reduces mental health through exhausting mental resources and high psychological pressures (Grandey and Cropanzano, 1999; Voydanoff, 2002; Eby et al., 2005; Baeriswyl et al., 2016). It appears that poor physical health, poor mental hygiene, and behavioral disorders are significantly associated with work-family conflict (WFC) (Molina, 2020). According to Fotiadis et al. (2019), work-family conflict leads to lower psychological well-being and increased psychological stress in employees. For instance, moderate work pressure causes employees to grow professionally by accepting this challenge and therefore enjoy psychological health (Harter et al., 2002). Job stressors through work-family conflict cause mental disturbances and affect employees' mental health (Bilodeau et al., 2019). Many researchers have linked Work-family conflict to countless adverse outcomes, such as domestic violence, insufficient physical activity, poor emotional health, reduced marital satisfaction decreased emotional well-being, and neuroticism (Grzywacz et al., 2003; Luk & Shaffer, 2005; Powell & Greenhaus, 2006; Zhang, Griffeth, & Fried, 2012; Salanova et al., 2014). The findings of Zhao et al. (2021) highlight the complex and mutual impact of irregular work shifts on the relationship between work-life conflicts and mental disturbances (Zhao et al., 2021). Different studies have shown a significant relationship between work-family conflict and mental and physical health (Hämmig O et al., 2011, Knecht MK et al., 2010). Work-family conflict is also associated with mental hygiene issues and may decrease mental abilities (Zapf et al., 1996). We conclude from the evidence presented above that work-family conflict is a significant predictor of nurses' psychological health. Accordingly, we derive the following hypothesis:

Hypothesis 1: Work-family conflict has a negative impact on psychological health.

2.2The relationship between work-family conflict and work stress

Both work and family become conflicting poles, demanding equal amounts of energy, time, and responsibility. Work-family conflict (WFC) define as a kind of inter-role conflict in which work and family-related pressures are incompatible (Greenhaus and Beutell, 1985). WFC is a type of inter-role conflict in which role pressures from work and family areas are incompatible and, in some respects, WFC occurs when the demands of work conflict with time or attention to the family. Various workplace factors such as total working hours, overtime requirements, inflexible work schedules, uncompromising peers, and an inconsistent organizational culture create conflicts between work and family roles (Carlson et al., 2000). Several studies have examined the relationship between work-family conflict and work stress (Kazmi et al., 2017; Lu et al., 2017; Smith et al., 2018). The work-family conflict increases

work pressure and stress and negatively affects employees (Mansour & Mohanna, 2017). According to Armstrong et al. (2015), work-family conflict causes stress in employees (Armstrong et al., 2015). Pal & Saksvik researched work-family conflict among Norwegian nurses and found that high job demand and low flexibility during working hours were predictors of job stress (Pal & Saksvik, 2008). Work and family conflicts cause occupational burnout, dissatisfaction, work stress, long working hours, and role conflicts (Kossek and Ozeki, 1998; Spector et al., 2004; Bakker et al., 2005. Ford et al., 2007). In addition, some studies investigated the potential impact of work-family conflict on organizational and personal well-being (Kossek and Ozeki, 1998; Ford et al., 2007). When work stress reflects on people's relationships with family members, it can hurt their psychological health and mental safety (Kahn, 1990). Based on the evidence mentioned above, we conclude work-family conflict is a significant predictor of employees' work stress. Accordingly, we assume: Hypothesis 2: Work-family conflict has a positive impact on work stress.

2.3The relationship between psychological health and turnover intention
The World Health Organization (WHO) describes psychological health as a state in which a person realizes his or her abilities, can cope with life stresses, and can work productively (WHO, 2004). Psychological health includes three components: psychological well-being, emotional well-being, and social well-being (Galderisi et al., 2015). The increased work intensity, lack of effective treatment or vaccines, high infection rates, and the fear of becoming infected has a significant adverse effect on healthcare workers' mental health caring for COVID-19 patients (Kisely et al., 2020). Good mental health is related to mental and psychological well-being (WHO, 2019). Psychological well-being is a broad concept that depicts emotional and psychological conditions, job satisfaction, and general life satisfaction levels. Psychological well-being determines the overall effectiveness of an individual in terms of psychological performance (Cartwright and Pappas, 2008). Moderate work pressure causes employees to grow professionally by accepting this challenge and therefore enjoy psychological health (Harter et al., 2002). Yáez and et al. (2020) found that health workers in Peru experienced anxiety and mental disturbances during the COVID19 pandemic. Meanwhile, younger employees are more willing to turnover than older colleagues (Yáez et al., 2020). Due to limited clinical knowledge of the new virus, frontline physicians and nurses, especially those with close contact with infected patients, regularly experience anxiety and symptoms of depression (depression afterward), emotional breakdown, and sleep disorders. Nurses Furthermore, other health and emergency workers suffer from physical and mental stress. They face complex and unpleasant ethical issues, ethical conflicts, high acuity, patient death, and long working hours in practice. During work at the the forefront of the epidemic, nurses, need moral courage, stamina, and high resistance while being separated from loved ones (Turale et al., 2020). Epidemics have a significant psychological impact on nurses (Fernandez et al., 2020). Previous studies have shown that epidemics exacerbate the stress felt by nurses as they cope with intense emotional, physical, and cognitive demands (Chen et al., 2020). Professionals faced risks, pain, and death at the forefront, as well as significant moral dilemmas. Furthermore, nurses' day-to-day work poses unnecessary risks because of the shortage of resources, lack of personal protective equipment, and increased workload (Ives et al., 2009; Inchausti et al., 2020; Zhao, 2020). Several studies investigated the inverse relationship between psychological health and turnover intention (Wu et al., 2017). According to Wright & Bonett (2007), low psychological well-being leads to lower job satisfaction and higher turnover intentions (Wright, & Bonett, 2007). If employees feel that the organization has met their needs, it is possible to reduce the turnover intention by improving psychological well-being. In other words, employees with psychological well-being at their workplaces are more productive, contribute to the organization's goals, and have less turnover intention (Harter et al., 2002; Aryee & Chay, 2001). During the COVID-19 pandemic, frontline healthcare workers reported poor psychological health. A cross-sectional survey of 1,257 healthcare workers caring for the COVID-19 patients in China revealed that nearly half of respondents were suffering from anxiety and depression (Lai et al., 2020). In addition, a lack of patient flow control, mismanagement, and a lack of planning may also cause occupational burnout

in nurses (Lam et al., 2020). Accordingly, we derive the following hypothesis:
Hypothesis 3: Psychological health has a negative impact on turnover intention.

2.4The relationship between work stress and turnover Intention

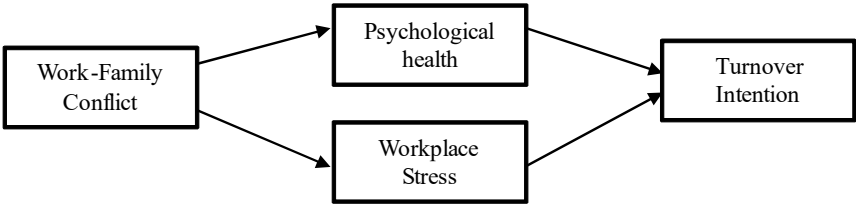
The World Health Organization defines Workplace stress as follows: The reaction of individuals in imposing work demands and pressures that do not match their knowledge and abilities (WHO, 2017). Reactions to stress issues are not a single phenomenon, and workplace stress is becoming one of the most critical problems for most employees today (Kuo, Liao, Jou, Chao, 2015). Hospital staff and related occupations are one of the occupational areas affected by work stress. Several studies defined working conditions in hospitals as severe conditions (Limbrecht-Ecklundt et al., 2016; Angerer & Weigl, 2015). Nurses experience moderate to high stress levels (Badu et al., 2020). The COVID-19 pandemic is a stressor for healthcare workers. Current research indicates that healthcare professionals suffer psychological disturbance due to the COVID-19 pandemic (Chen et al., 2020). They experience significant problems when working with patients with COVID-19, including psychological distress, social isolation, role conflicts, fear, and anxiety (Chen et al., 2020). Several factors, including weekly working hours and shift work, special services, and time pressure was identified as the leading causes of stress (Zwack et al., 2011; Beschoner et al., 2019). Organizations must develop strategies to handle harmful and costly stressors, and organizations that fail to do so will see their employees seek better job opportunities elsewhere (Wang et al., 2020). High psychological pressures on employees ultimately lead to ineffective workers, more staff turnover, lower quality and quantity working practices, increased healthcare costs, lower job satisfaction, and lower productivity (Khan IH et al., 2020). Labrague and De Los Santos (2020) examined the effect of fear of COVID-19 on nurse job satisfaction, psychological disturbances, and turnover intention in their workplace. The study concluded that an increase in fear of COVID-19 would lead to more significant psychological disturbances, greater turnover intention, and decreased job satisfaction. Nurses caring for COVID-19 patients in underdeveloped countries are at risk of infection due to the lack of appropriate protective equipment that increases their turnover intention (Menon & Padhy 2020). Accordingly, we derive the following hypothesis:
Hypothesis 4: Work stress has a positive impact on turnover intention.

2.5Mediating variables

The reviewed literature indicates that work stress and psychological health mediate the relationship between work-family conflict and turnover intention. Panatik et al. (2011) conducted a study in Malaysia, identifying several specific factors of work-family conflict that affect psychological health. They found that the role of work-family conflict is evident in increasing anger and aggression levels so that work-family conflict leads to mental health problems and causes employee turnover (Obrenovic et al., 2020). Furthermore, Westman's crossover model suggests that psychological stress and work-family conflict are transferable to other team members. These negative experiences reduce the waste of resources, which has adverse consequences such as turnover or leaves of absence and sick leave for the organization (Westman et al., 2004). Additionally, Lu et al. (2017) found a significant relationship between work-family conflict, work stress, and turnover intention. An employee's turnover intention increases due to work-family conflict and employee workplace stress (Rubel, 2017). Alternatively, there is a direct relationship between WFC and the stress experienced in the workplace, which leads to an increased tendency to turnover (Hardy et al., 2003). One study advised healthcare managers to focus on critical factors that may directly affect physician's well-being and ultimately reduce staff (Harun et al., 2020). Thus, we propose:

- Hypothesis a5: Psychological health mediates the relationship between work-family conflict and turnover intention.
Hypothesis b5: Work stress mediates the relationship between work-family conflict and turnover intention.

Figure 1.
Research model



3.Research method and data collection

This research uses a quantitative methodology for the primary strategy and in terms of analytical technique, it is a descriptive survey type. The sample of this study is COVID-19 frontline nurses in the west of Iran. We used a closed question questionnaire with a five-point Likert scale to collect demographic data and research variables. We collected data from December 2020 to February 2021. All survey participants were informed of the study's objectives and consented verbally to participate in the survey. We ensured that the collected data were kept confidential from the respondents. We collected questionnaires in one envelope to protect participants' privacy and the topic's sensitivity. To increase the response rate, a souvenir worth \$ 0.50 was provided. Questionnaires were sent to 420 people, of which 303 participated in the study. To analyze, we only considered filled questionnaires. After removing the questionnaires with missing values, the final sample consisted of 274 nurses, 211 women, and 63 men. Among the participants analyzed, 36.4% of employees were between 35 and 44 years old, 53.8% of participants were between 24 and 35 years old, and 8.9% were over 55 years old. 31.3% of the participants had less than five years of work experience, and 68.7% had more than five years of experience. To prepare the questionnaire items, we used reverse translation. Two researchers fluent in both languages translated the items written in English into Persian and then inverted them from Persian to English to ensure that there was no semantic difference. A month before the original survey, we conducted a preliminary survey to reconsider vague items. The first part of the questionnaire included demographic questions about participants (e.g., age, gender, and tenure duration) because these characteristics play an essential role in predicting employees' attitudes (Williams & Hazer, 1986). The other parts of the questionnaire addressed research variables. The proposed questionnaire by Haslam et al. (2014) assessed the work-family conflict variable. Cronbach's alpha index is 0.901, which shows good internal consistency. The 12-item Goldberg & Williams (1988) questionnaire (GHQ-12) was used to assess psychological health. The Cronbach's alpha index is 0.927. We used a 15-item Kahn et al. (1964) questionnaire to measure workplace stress. Cronbach's alpha index is 0.931. To measure turnover intention, we used a 4-item questionnaire developed by Cammann et al. (1979) and Seashore et al. (1982). The Cronbach's alpha index is 0.806.

3.1Statistical analysis

The collected data were analyzed with SPSS and AMOS software. In the first instance, skewness and kurtosis indices were used to assess the type of data distribution. Then, a Pearson correlation test was performed to confirm that the orientation of the measurement items corresponded to the hypotheses. Table 1 describes the variables to be studied.

Table 1.
Description of research
variables

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Work-family conflict	274	1.00	5.00	3.4000	.73599	.542
psychological health	274	1.42	5.00	3.3863	.73438	.539
Workplace stress	274	1.47	5.00	3.3800	.69413	.482
Turnover intention	274	1.50	5.00	3.4535	.76339	.583

First, we tested the normality of the distribution of variables to determine which method (parametric or non-parametric) used when testing the research hypotheses.

Variables	Skewness		Kurtosis		Test result
	Statistics value	Std. Deviation	Statistics value	Std. Deviation	
Work-family conflict	-.297	.147	.115	.293	Normal
psychological health	-.134	.147	-.435	.293	Normal
Workplace stress	-.448	.147	.266	.293	Normal
Turnover intention	.053	.147	-.294	.293	Normal

Table 2.
Results of the normality of the variables in the research

The correlation coefficient ranges from -1 to +1. This coefficient is closer to +1, which indicates a stronger and more positive relationship between the two variables. In other words, when one variable increases, the other increases, and vice versa, when one variable decreases, the other variable decreases. Additionally, the closeness of this coefficient to ?1 indicates the severity and negativity of the relationship between the two variables. Therefore, when one variable increases, the other decreases, and when one decreases, the other increases.

	Work -family conflict	psychological health	Workplace stress	Turnover intention
Work-family conflict	1	-.566**	.641**	.588**
psychological health	-.566**	1	-.502**	-.573**
Workplace stress	.641**	-.502**	1	.607**
Turnover intention	.588**	-.573**	.607**	1

Table 3.
Pearson correlation test between variables

As can be seen, the relationships between the study variables are significant. According to the correlation sign in the table above, the relationship between the three variables of work-family conflict, workplace stress, and turnover intention is positive. The relationship between psychological health and the other three variables is negative and inverse.

3.2KMO and Bartlett sphericity tests

To some extent, questionnaire questions should correlate with each other, but excessive correlation leads to multicollinearity, preventing identifying independent factors. In this study, we used Bartlett's test of sphericity to investigate this issue. Bartlett's test of sphericity statistical significance indicates enough correlation in the data matrix to proceed with factor analysis. The Kaiser-Meyer-Olkin (KMO) test, also known as the sample size adequacy test, examines whether we can categorize the questionnaire questions into smaller sets of factors. The value of this index is between 0 and 1, and a value of 0.5 means the number of data is appropriate for factor analysis. In the table below, we show details of the KMO and Bartlett's sphericity tests.

KMO test	Bartlett's Test of Sphericity	degrees of freedom	Significance level
0.939	6674.62	820	0.00

Table 4.
KMO and Bartlett spherical test results

In the table above, the KMO index value was 0.939, which indicates the adequacy of sampling. Bartlett's test of sphericity was also significant (p = 0.00), indicating that the correlation matrix is suitable for factor analysis of data. The appropriateness of the measurement tool (questionnaire) was assessed through confirmatory factor analysis (CFA) using a covariance-based approach. Also, to assess the

goodness of fit model, we used χ^2/df , IFI, CFI, GFI, RMSEA, and NFI indices. Table 3 provides a summary of the values of the indicators. We tested five hypotheses using Structural Equation Modeling (SEM) running on AMOS24 software. Standard errors and p values were calculated for the structural model to estimate the standard parameters of the path analysis. Model suitability was judged when the CR value was equal to or greater than 1.96 or in the exact opposite direction, i.e., when it was equal to or less than (-1.96). We followed Haye's (2009) procedures in formulating mediating hypotheses. After introducing mediating variables, assumed that the independent variable of work-family conflict affects turnover intention increases.

The researchers were confused because conceptual model fitting and indicators that best define the model fitting are varied and complex. The table below provides chi-square/ degrees of freedom indices; the root means a square error of Approximation, the normative fit index, the comparative or adaptive fit index, the incremental fit index, the goodness of fit indices, and Cronbach's alpha coefficients used during the research.

Examined indicators	Latin symbol	Standard rate	
chi-square/ degrees of freedom	(χ^2/df)	Less than 3	Karmynz and Mklavr (1981)
Root means square error	(RMSEA)	Less than 0.08	Haier et al. (1998)
Normative fitness index	(NFI)	More than 0.9	Bentler and Bunt (1980)
Comparative fitness index	(CFI)	More than 0.9	Bentler and Bunt (1980)
Incremental fitness index	(IFI)	More than 0.9	Bentler and Bunt (1980)
Goodness of fit index	(GFI)	More than 0.8	Etzadi and Forouhmand (1996)
Cronbach's alpha	(ALPHA)	More than 0.7	Cronbach (1951)

Table 5.
Model goodness of fit indices

The following diagram shows the coefficients extracted in standard mode.

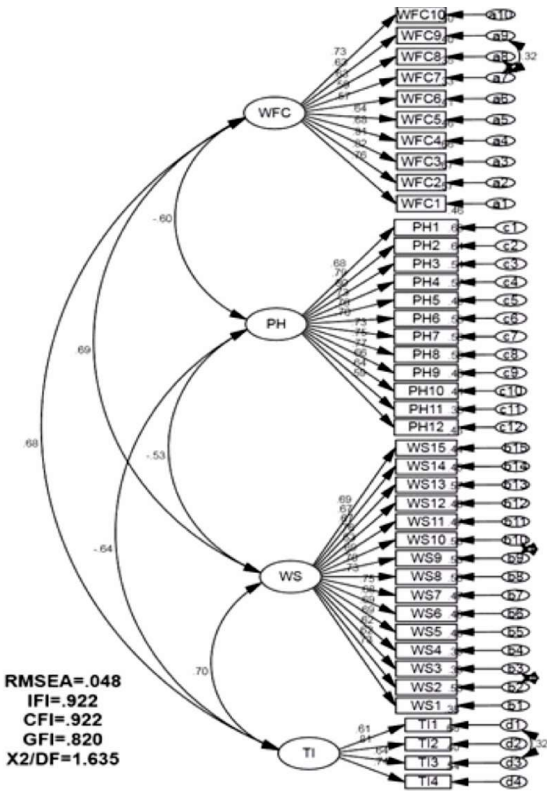


Figure 2.
Standardized coefficients of the confirmatory factor analysis model

The following diagram shows the coefficients extracted in the nonstandard mode.

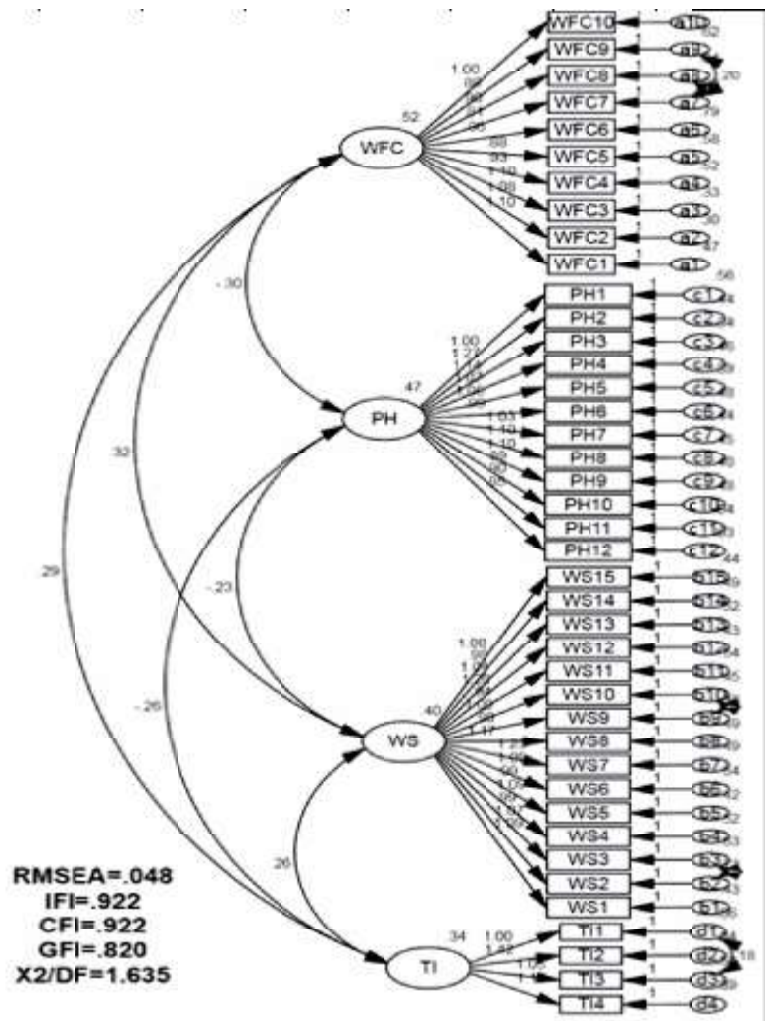


Figure 3. Non-standardized coefficients of the confirmatory factor analysis model

3.3Factor loads and significance tests

Using the standardized coefficient model, we can check whether there is a significant correlation between the latent variables and their corresponding indices. Standard coefficients represent the path coefficients or standardized factor loads between factors and markers. Validity requires significant relationships between structure and dimension as well as between dimension and index. We can say that the questions have good explanatory power if the standardized factor load is higher than 0.4. A critical CR value indicates whether the parameters are significant. The model parameters are significant if the CR value is greater than the absolute value of 1.96.

Table 6.
Factor loads and
significance level between
questions and latent
variables

Variables	Questionnaire questions	SRW Standard coefficient	RW Non-standard coefficient	S.E. Standard error	C.R. Critical value (C.R)	P Significance level	alpha Cronbach's alpha	Result
Work-family conflict	WFC10	.731	1.000	-	-	-	0.901	Optimal
	WFC9	.631	.884	.087	10.166	***		Optimal
	WFC8	.631	.899	.088	10.173	***		Optimal
	WFC7	.594	.805	.084	9.546	***		Optimal
	WFC6	.573	.860	.093	9.205	***		Optimal
	WFC5	.644	.883	.085	10.394	***		Optimal
	WFC4	.681	.930	.084	11.012	***		Optimal
	WFC3	.810	1.100	.083	13.191	***		Optimal
	WFC2	.818	1.075	.081	13.335	***		Optimal
	WFC1	.758	1.101	.089	12.309	***		Optimal
psychological health	PH1	.675	1.000	-	-	-	0.927	Optimal
	PH2	.795	1.266	.106	11.915	***		Optimal
	PH3	.801	1.136	.095	11.997	***		Optimal
	PH4	.734	1.075	.097	11.107	***		Optimal
	PH5	.755	1.053	.092	11.395	***		Optimal
	PH6	.701	.993	.093	10.652	***		Optimal
	PH7	.727	1.031	.094	11.015	***		Optimal
	PH8	.747	1.101	.098	11.277	***		Optimal
	PH9	.765	1.101	.096	11.527	***		Optimal
	PH10	.657	.886	.088	10.052	***		Optimal
	PH11	.642	.898	.091	9.833	***		Optimal
	PH12	.592	.850	.093	9.125	***		Optimal
Workplace stress	WS15	.690	1.000	-	-	-	0.931	Optimal
	WS14	.666	.983	.095	10.353	***		Optimal
	WS13	.673	1.038	.099	10.457	***		Optimal
	WS12	.755	1.197	.103	11.661	***		Optimal
	WS11	.629	.937	.095	9.818	***		Optimal
	WS10	.689	1.004	.094	10.684	***		Optimal
	WS9	.705	.902	.083	10.922	***		Optimal
	WS8	.727	1.167	.104	11.253	***		Optimal
	WS7	.745	1.231	.107	11.515	***		Optimal
Turnover intention	WS6	.683	1.089	.103	10.611	***	0.806	Optimal
	WS5	.694	.987	.092	10.779	***		Optimal
	WS4	.694	1.093	.101	10.770	***		Optimal
	WS3	.623	.993	.102	9.713	***		Optimal
	WS2	.621	1.067	.110	9.685	***		Optimal
	WS1	.727	1.093	.097	11.249	***		Optimal
Turnover intention	TI1	.614	1.000	-	-	-	0.806	Optimal
	TI2	.815	1.415	.145	9.777	***		Optimal
	TI3	.636	1.047	.102	10.278	***		Optimal
	TI4	.736	1.165	.126	9.266	***		Optimal

SRW, standardized regression weights; URW, unstandardized regression weights; CR, critical value.

As shown in the table above, all questions have a standardized factor load greater than 0.4. All significant numbers (CR) between items with relevant latent variables exceed 1.96, and the significance level is below 0.05, proving the constructs are valid at a significance level of 0.05. It is not necessary to change or eliminate questions in the research model and questionnaire. It is necessary to estimate Cronbach's alpha coefficients for latent variables to perform confirmatory factor analysis. The acceptable criterion for this index was 0.7, showing the optimal and reliable reliability of the variables. Each variable achieved this value.

3.4Confirmatory factor analysis model fitting indicators

Confirmation of the factor analysis model and documentation of the results require model fitting indicators within an acceptable range. The indicators used, along with their values, are listed in the table below.

Characteristic		Estimation	Result
chi-square/ degrees of freedom	(x2/ df)	1.635	Less than 3 and acceptable
Root means square error	(RMSEA)	0.048	Less than 0.08 and acceptable
Normative fitness index	(NFI)	0.822	Close to 0.9 and acceptable
Comparative fitness index	(CFI)	0.922	More than 0.9 and acceptable
Incremental fitness index	(IFI)	0.922	More than 0.9 and acceptable
Goodness of fit index	(GFI)	0.820	More than 0.8 and acceptable

The impact of Work-Family Conflict on Psychological Health

11

Table 7.

Results of fitting indicators of confirmatory factor analysis models

In the confirmatory factor analysis model, as shown in the table above, the chi-square value with a degree of freedom of 1.635 is lower than 3. As well, the estimated root means square error (RMSEA) is 0.048 and less than 0.08. The calculations also revealed that the comparative fitness index (CFI), cumulative fitness index (IFI), normative fitness index (NFI), and goodness of fit index (GFI) are all at a satisfactory level.

Consequently, based on the calculated indicators, we conclude that the model has a good fit. According to the above table, confirmatory factor analysis of the questionnaire constructs shows a good fit, and the structures of the questionnaire show relevant variables.

Also, the model fitting indices and Cronbach's alpha value are optimal and attributable. Thus, based on the collected data and 95% probability, we can state that the survey questions measure what we consider. This part of the research used structural equation modeling to investigate the hypothesis. We must ensure optimal proportion and fitness before confirming structural relationships. As shown in Table 7, the index of fit of all models is favorable. As such, we conclude that the model has good fitness and is approved.

x2/ df<3	RMSEA<0.08	CFI>0.9	NFI>0.9	IFI>0.9	GFI>0.8
13.019	0.210	0.945	0.942	0.946	0.953

Table 8.

Results of fitting indicators of the conceptual research model

The diagram below shows the research model based on non-standardized path coefficients.

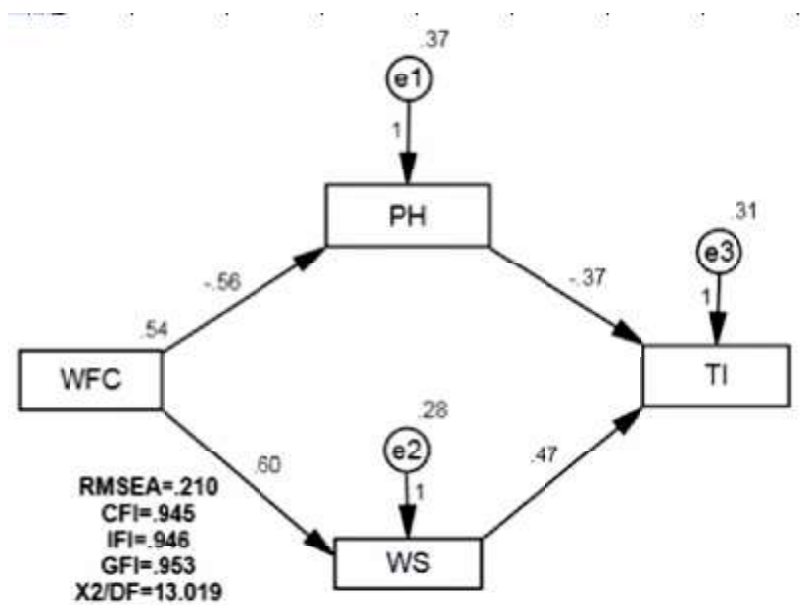


Figure 4.

The research model for non-standardized path coefficients

The diagram below shows the research model based on standardized coefficients.

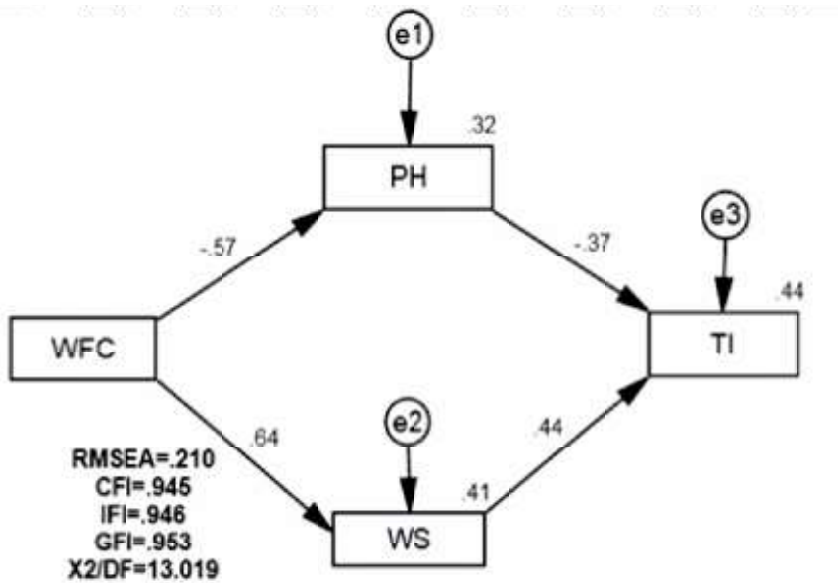


Figure 5.
The research model for
standardized path
coefficients

	Critical value (C. R)	Significance level	Standard path coefficient	Non- standard path coefficient	coefficient of determination
Work-family conflict → psychological health	-11.344	0.00	-0.57	-0.565	0.32
Work-family conflict → workplace stress	13.794	0.00	0.64	0.604	0.41
Psychological health → turnover intention	-7.552	0.00	-0.37	-0.373	0.44
Workplace stress → turnover intention	9.003	0.00	0.44	0.470	0.44

The table above shows that all four paths of the model are statistically significant. The psychological health and workplace stress coefficients were estimated at 0.32 and 0.41, respectively. Therefore, we can conclude that work-family conflict alone predicts 32% of changes in psychological health and 41% of changes in workplace stress. The coefficient of determination of turnover intention (0.44) indicates that psychological health and workplace stress together predict 44% of turnover intention changes (variance).

Hypothesis 1

H1 Work-family conflict has a significant effect on psychological health.

Table 10 shows the absolute value of critical statistics and the significance level of the association between work-family conflict and psychological health as 11.344 and 0.00, respectively. Since the estimated significance level is less than 0.05 and the estimated critical value is more significant than 1.96, the effect of work-family conflict on psychological health was confirmed. As the standard path coefficient between these two variables is negative and equal to -0.57, it should be clear that by increasing a unit of standard deviation in the work-family conflict, we will see a decrease in psychological health up to 0.57 units. By increasing the rate of work-family conflict, psychological health will decline. Therefore, the first hypothesis is confirmed.

Hypothesis 2

H1 Work-family conflict has a significant effect on workplace stress.

According to Table 10, the absolute value of critical statistics (CR) and the significance level between work-family conflict and workplace stress were respectively 13.794 and 0.00. Because the estimated significance level is less than 0.05, and the estimated critical value is more significant than 1.96, the effect of work-family conflict on workplace stress is confirmed. Because the standard path coefficient between these two variables is positive and equal to 0.64, we can say that a one-unit increase in the standard deviation of the work-family conflict will increase to 0.64 units in the standard deviation of workplace stress. As work-family conflict intensifies, workplace stress will increase.

Hypothesis 3

H1 Psychological health has a significant effect on turnover intention

According to Table 10, the absolute value of critical statistics (CR) and the significance level between psychological health and turnover intention was calculated as 7.552 and 0.00, respectively. As a result, since the estimated the significance level is less than 0.05, and the estimated critical value is higher than 1.96, it is inferred that the effect of psychological health on turnover the intention is confirmed. Since the standard path coefficient between these two variables are negative and equal to -0.37, with one unit increase in the the standard deviation of psychological health, there will be an increase of 0.37 units in the standard deviation of turnover intention. As psychological health intensifies, the turnover intention will decline. Therefore, hypothesis 3 is confirmed.

Hypothesis 4

H1 Workplace stress has a significant effect on turnover intention

As shown in Table 10, the absolute value of critical statistics (CR) and the significance level between workplace stress and turnover intention was calculated as 9.003 and 0.00, respectively. As a result, since the estimated the significance level is less than 0.05, and the estimated critical value is higher than 1.96, it is inferred that the effect of workplace stress on turnover the intention is confirmed. Since the standard path coefficient between these two variables are positive and equal to 0.44, with one unit increase in the standard deviation of workplace stress, there will be an increase of 0.44 units in the the standard deviation of turnover intention. As workplace stress intensifies, the the turnover intention will increase. Therefore, hypothesis 4 is confirmed.

3.5The direct, indirect, and total work-family conflict effects on turnover intention

According to the conceptual model of the research, work-family conflict affects turnover the intention in two ways, firstly through psychological health and second through workplace stress; the table below shows the results of both paths.

	Indirect impact	Total impact	Total effects
Work-family conflict → psychological health → turnover intention	0.2109	0.2109	0.4925
Work-family conflict → workplace stress → turnover intention	0.2816	0.2816	

The impact of Work-Family Conflict on Psychological Health
13

Table 10.
The direct, indirect, and total work-family conflict effects on turnover intention

As Table 9 shows, the effect of work-family conflict on turnover intention was estimated to be 0.2109 through psychological health mediation and 0.2816 through workplace stress mediation. Also, the effect of total work-family conflict on turnover intention through two mediators of psychological health and workplace stress was equal to 0.4925. As a result, we can infer that by increasing the rate of work-family conflict, we will see an increase in turnover intention.

4. Discussion and Conclusion Section

Because of the COVID-19 crisis, we researched the relationship between work-family conflict of nurses and their turnover intention. This experimental study examined the impact of work-family conflict on psychological health and work stress. We assumed that these two factors mediate the relationship between work-family conflict and turnover intention. This study demonstrates that there is a relationship between work-family conflict and psychological health, and work stress. Nurses usually suffer from enormous psychological stress due to high levels of workload and high-risk environments. Nurses who work in such difficult physical and emotional conditions often suffer mental exhaustion. Nevertheless, The literature suggests that the outbreak of -COVID19 has a significant impact on the mental health of nurses. Much evidence indicates a significant relationship between the prevalence of COVID-19 and sides mental health problems such as stress or occupational burnout, depression, and anxiety (Wu et al., 2020; Mo et al., 2020). Alternatively, given the influential role of nurses during this epidemic, nurses must balance their work and personal lives and maintain their mental health. This study's findings are consistent with previous studies examining the effect of work-family conflict on psychological health (Zhao et al., 202; Molina, 2020; Fotiadis et al., 2019; Grzywacz et al., 2003). The results of the analysis showed that work-family conflict has a positive effect on nurses' work stress. According to previous studies, we found that negative work-family interaction exerts stress on nurses. This stress manifests itself by influencing the physical, behavioral, and cognitive parts of their daily lives. This study's findings are consistent with previous studies examining the effect of work-family conflict on work stress (Armstrong et al., 2015; Kazmi et al., 2017; Lu et al., 2017; Smith et al., 2018; Mansour & Mohanna, 2017; Pal & Saksvik, 2008). At a professional level, an organization can contribute to the employees' psychological health by preventing conflict and providing advice to employees on family or occupational issues. Organizational stimuli create a calm, worry-free environment by fostering a positive organizational climate. According to Mansour and Tremblay (2016), employees spend more time at home with a higher quality of life when they believe that the organization cares about their personal lives, which reduces family obligations and reducing stress. Conversely, the employee may transfer job-related frustration to the family environment due to overtime, fatigue, and lack of freedom at work (Mansour and Tremblay, 2016). Work stress is essential in organizational research because it will be harmful to employees and organizations at the same time. Emotional dissatisfaction and anxiety are reflected in occupational and family areas, resulting in unproductive behaviors toward colleagues and organizations (Bennett and Robinson, 2000; Yu et al., 2019). According to Balicer et al. (2006) and Kahn et al. (2016), psychological support was a critical factor affecting employees during and after the pandemic. Emotional skill training among nurses is very beneficial in preserving mental health in emergencies. Hammer et al. (2009) stated that supportive policies help employees achieve their goals effectively manage their work and family roles. A significant number of investigations were conducted in organizational efforts to investigate the devastating consequences of work-family conflict (Grant Vallone and Donaldson, 2001; O'Driscoll et al., 2004). People's mental hygiene increases when organizational principles encourage work-family balance (Fitzpatrick et al., 2012). Knowing that a "happy" employee is a more productive employee, organizations are increasingly paying attention to employee family life and actively participating in solving work-family conflicts. It is crucial to pay attention to psychological health factors and thus motivate significant work achievements. Simultaneously, more attention is paid to factors causing uncertainty, dissatisfaction, insecurity, and conflicts, as well as factors reducing personal and organizational well-being (Obrenovic et al., 2020). Several studies have examined the effects of negative workspace on individuals. The lack of social, emotional, and organizational support may cause the employee to become increasingly distant from their job. It is clear from the outcomes that organizational support at the workplace can reduce stressors. According to the findings of this study, psychological health and work stress influence turnover intentions. Work-related problems, family problems, and health problems can affect psychological health. We hypothesized that turnover intention decreases when employees' psychological health is desirable. A mediating effect of psychological health is

identified. This study's findings are consistent with previous studies (Gao et al., 2014; Wu et al., 2017; Wright, Wright, & Bonett, 2007; Harter et al., 2002; Aryee & Chay, 2001). Additionally, we assumed that employees would be more willing to turn over their current job when work stress increases. People who experience stress and tension at work have difficulty concentrating on their work, which would transfer into their personal lives. Additionally, the mediating effect of work stress on work-family conflict and turnover intention was identified. Work-related stress is a significant threat to healthcare workers' quality of life and can cause hostility, aggression, absenteeism, turnover, and reduced productivity (Mosadeghrad et al., 2011). These findings are consistent with the evidence presented in previous research (Wang et al., 2020; Labrague De Los Santos, 2020; Lu et al., 2017; Menon & Padhy, 2020). Finally, the work-family conflict has an indirect effect on turnover intention. The results were consistent with previous findings (Ozbag & Ceyhun, 2014; Blomme et al., 2010; Post et al., 2009; Anderson et al., 2002). Work-family conflict affects turnover intention, psychological disturbance, and life satisfaction (Greenhaus and Beutell, 1985). Reducing work-family conflict also reduces the turnover intention (Aboobaker & Edward, 2019). In societies with a strong tradition of marital commitment, the work-family conflict has a different effect (Liu et al., 2016). This empirical study was conducted in Iran in an Islamic context. Islam emphasizes the importance of the role of nurses and the high value of this job. In Islam's viewpoint, nursing is an act for God's sake and a way of approaching Him. According to the Hofstad study (2003), resources are perceived and funded differently depending on the culture and whether it is individualistic or collectivist. Organizational policies in individualistic societies tend to encourage and educate individuals to preserve their physical and psychological resources. Collectivist cultures tend to emphasize the benefits of the group as they are considered to affect the whole seamlessly. Therefore, the aim is to create a healthy and safe environment during social activities and emphasize maintaining social harmony. We concluded from our study that the healthcare system and hospital managers should strive to improve nurses' work and personal life during the COVID-19 crisis. They must use practical strategies and policies to improve nurse working and personal lives to promote a safe working environment away from traumatic and stressful factors in which nurses can interact freely. These measures will bring peace of mind to nurses and encourage them to continue their current job. According to this study, work-family conflict is a significant predictor of turnover intention during the Covid-19 epidemic. Understanding the nature of work-family conflict and its causes is crucial to ensuring the success of nurses and hospitals. This study confirms the association between work-family conflict with psychological health as well as work stress. The turnover intention increases with increased work stress, and psychological health reduces turnover intention. The work-family conflict relationship and turnover intention are mediated by psychological health and work stress. Increasing knowledge in organizational psychology confirms that the interaction between work and family and psychological health is one of the most critical issues for scientists and professionals concerning staying or leaving the job.

5. Practical Implications and Future Study

This study shows a relationship between work-family conflict with psychological health and stress and the ultimate effect on turnover intention. This concept contributes to filling the gaps in studies on the COVID-19 pandemic in the Middle East region and enriches organizational psychology. This study is critical because it is differentiated from previous research focused on Western societies with different family cultures and analyzes the effects of research variables of the turnover intention. This study's innovative feature is the study of nurses in the COVID-19 crisis and the potential impact of this outbreak on variables measured in this study. This research indicates that managers and strategists should pay particular attention to nurses' life-work interactions during COVID-19. They must create an environment where nurses are motivated to use energy and achieve full potential to ensure their mental health decreases work-family conflicts and negative organizational behaviors. During the COVID-19 epidemic, the healthcare system should pay more attention to nurses' personal life and psychological health to reduce work-family conflicts and stress and their

good mental health. A healthy work environment plays a vital role in providing optimal patient care by nurses (Vollers et al., 2009). It is crucial to create an open and safe environment to express concerns, work, and personal life problems. A closed work environment and lack of work flexibility can disturb nurses mentally. Healthcare workers have a unique tie to the community, so crises like COVID-19 have a notable impact on their lives. Considering that a large proportion of nurses are women, and given the prevailing culture in Islamic countries, it can be stated that work-family conflicts and occupational problems during the COVID-19 pandemic will be more significant for women than men. According to the global trend, although women account for 39% of global employment, 54% of the job losses in the COVID-19 pandemic are associated with women (Madgavkar et al., 2020). Prior research indicates that flexible working arrangements, regulatory support, family-supportive cultures, and resource-rich job components contribute to positive work outcomes for the family. Such interventions can effectively strengthen work-family interactions and positively affect the employee and, therefore, the organization and society. Creating flexibility, transparency, and focusing on employees' outcomes, and encouraging an open and supportive culture can positively impact their mental peace. These measures also contribute to the level of engagement and reduce turnover intention. In line with the study results, managers should develop more accurate intervention strategies and organizational initiatives and precisely tailor them to reduce the amount of work interference in the family. The organizational culture plays a vital role in improving working conditions and the treatment of behavioral disorders. Complex organizations such as healthcare organizations, Healthcare organizations typically consist of several professional groups with different cultures, and the related aspects of each subculture in a large organization may not prefer planned changes. Organizational culture can help employees resolve work and family problems and strengthen their commitment to staying and continuing working by reducing stress and improving psychological health. Employees experience less work-family conflict in organizations with influential cultures (Bakker & Schaufeli, 2008). These organizational cultures minimize the chances of family-work conflict and the organization will benefit from employee interaction. Reflecting on the available evidence, we find that mental health creates feedback in work environments, thereby contributing to higher demands and resources. It is therefore critical that organizational leaders recognize this impact and begin change accordingly. Healthcare centers and hospitals must therefore focus on creating a healthy organizational culture. Nursing leaders should develop training programs and interventions for organizational change toward constructive cultural styles. Work stress and psychological health play a crucial role in turnover intention. Fear and anxiety about this infectious disease can be debilitating if they are not adequately identified and controlled. Since the disease outbreak occurred suddenly, it is unclear how nurses experience stress and mental health issues. Nurses have been working in the crisis center for more than a year. Understanding the psychological changes in these nurses and ways to control their stress is essential. Nurse leaders need this information immediately to design stress management programs and interventions to maintain nurses' psychological health. Therefore, Managers should pay more attention to reducing workplace stresses and improving mental relaxation. Efforts to reduce the occurrence of work-family conflict and its effect resulted in a significant reduction in turnover. Organizations should identify and implement strategies to reduce the occurrence of work-between-family conflicts and improve work-life balance. A flexible program and reduced work intensity are suitable options that organizations should consider. Moreover, introducing new communication tools based on innovative technology can significantly reduce work stress (Cascio and Montealegre, 2016). Organizations must consider the family responsibilities of employees and their work responsibilities. Today, only a limited number of organizations take the necessary measures to retain and develop their employees. In this regard, organizations can offer employees various training sessions that help them grow personally and professionally. It is also necessary to consider different methods for managing work-family conflicts. Alternatively, The human resource management policies and practices should plan strategically and implement correctly. By improving the status of intra-role and inter-role behaviors of employees, organizations can obtain the necessary results from

employees by implementing these strategies. Most organizations actively search for techniques to improve communication between employees and organizations, even if it makes a costly investment. The organization will have more committed staff if these techniques are implemented correctly. The literature shows that work-family conflicts can be managed by focusing on the issue itself (Rapoport et al., 2002). Hospitals should implement effective mental health promotion programs focused on occupational safety and family support to improve nurse well-being (Zheng et al., 2021). The innovative points of this study translate into practical implications for managers and leaders, showing that they must create a healthy work environment that motivates nurses and reduces work-family conflicts. This study contributes to occupational, psychological health, and management literature. Future research is also suggested to consider other determinants such as strong traditional and religious values that may lead to work-family conflict through some work outcomes. Another part of this study is that our research was performed among nurses from an Islamic culture in Iran. In this field, most studies to date examined Western societies.

6.Futures studies and Limitations

This study has several limitations that require consideration. First, this study is cross sectional and performed during the COVID-19 pandemic, affecting many factors and variables. Future studies should collect data at different times to assess turnover intention with work-family conflict and consider psychological health and work stress. In this study, we approached work-family conflict from interference between work and family roles. Future studies can examine situations where people have several roles to perform but cannot decide that one to fulfill. Another limitation is that the convenience sampling method was used. This study examined a sample of nurses fighting COVID-19 disease. So, the question is whether the study is generalizable? The current study is reproducible, and future studies should confirm the validity of the findings on nurses in other countries. This sample is also more composed of women, so future studies should examine gender differences and work-family conflict and determine whether men or women are vulnerable to stress and impaired mental health when performing multiple roles. Furthermore, the effect of specific elements of work-family conflicts, such as time, energy, and behavior on turnover intention, requires further research. Finally, we used self-reported actions in this study to assess model variables, including turnover intention. Further studies could use turnover observation and statistics from managers and supervisors to verify our research findings.

Ethical Statement

This research was conducted under the highest research standards. Before beginning the questionnaire, participants consciously agreed with the overall objectives of the research. They were informed that their participation was voluntary and that their responses would be collected and analyzed anonymously and confidentially. Additionally, they received the researchers' contact information.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Acknowledgments

We thank all the nurses who have voluntarily and selflessly participated in this study. We dedicate this article to them and applaud their efforts, fortitude, courage, and hard work.

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Impact of Dividend and Leverage on Free Cash Flow in The Context of Agency Problem: Evidence from Pakistan

Impact of Dividend and Leverage on Free Cash

25

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Abstract

Objective: The purpose of this paper is to study the agency theory problem. To test the free cash flow (FCF) hypothesis to reduce the agency theory in firms operating in Pakistan. Further, this paper gives an overview of financial reporting conditions and corporate governance practices.

Design/methodology/approach: This study has applied panel regression on data. It is collected from 2010 to 2017 from companies listed in the Pakistan stock exchange. This paper used the Fixed and Random effect model to test the relationship. The current study collected data from 119 companies from the stock exchange of Pakistan.

Findings: We find that the free cash flow hypothesis exists in firms listed in the Pakistan stock exchange. Debt is the more proper approach to reduce the free cash flows in management control than the dividend. Furthermore, we find that capital expenditure adds to the value of the firms.

Originality/value: This study is the first analysis of the agency theory problem to measure the effectiveness of the free cash flow (FCF) hypothesis in the context of public sector non-financial firms in the Pakistan Stock exchange. The study contributes to the literature of corporate laws, agency theory, and the dividend payment patterns adopted by firms.

Keywords: Agency problem, Dividend, Debt, Free cash flow, Capital expenditure, Growth, Pakistan.

1. Introduction

The agency theory states there is a conflict of interest between managers and shareholders of the firms. The managers work to earn more benefits and salaries while neglecting their responsibility toward the shareholders of the business. The principles of the agency theory (Jensen and Meckling, 1976) make the foundation for free cash flows, claiming that managers use free cash flow to invest in projects, which have negative net present value (NPV). The financing decisions are to make more profits and add value to the firm (Khajar and Alfian, 2022). These investment outflows can be fatal for firm financial health. It fails to capture new markets for stock, and owners start to reconsider the firm's value. The agency theory says that managers' decisions often lead toward their prosperity which is the root cause of disputes among managers and shareholders. In the absence of authority of shareholders in the firm, it gives managers the power to involve nonprofit maximizing activities, such as excessive use of perquisites or risk-taking activities (Hubbard and Palia 1995).

In the absence of a proper monitoring system, firms with too much free cash flow are



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probably lowering their performance (Dechow, Richardson, and Sloan, 2008). Therefore, high FCFs are an indicator in which auditors are encouraged to check the nonprofit maximizing activities of such firms. Corruption and bankruptcy have been a problem in developed countries for decades. Since the financial corruption of managers has happened, corporate governance issues attended cautiously, which can help enhance the reporting quality of financial statements. A country like the US has also faced such conflicts. Enron, a leading US corporation, was found with the agency problem between management and shareholders (Cunningham & Harris 2006).

The agency theory serves as the base for free cash flow (FCF). Jensen (1986) says that dividends and debt are tools to align the interests of managers with that of the shareholders and minimize the agency theory problem in the holdings. Dividend payments are made to shareholders and thus reduce free cash flow (FCF) in the hands of managers to invest in nonprofit maximizing activities. Moreover, it encourages managers to make such investment decisions which can increase the firm's profit (Lasfer, 1995). It mitigates the agency problem of poor management of free cash flow (FCF), where lies chances of using these free cash flows in projects with outflow projects. Current corporate governance theory supports the relationship between ownership structure and dividends because of the "Agency Problem" (Jensen, 1986; Easterbrook, 1984; Kargar and Ahmadi, 2013). The dividend payments work as a bulwark, where monitoring of management by shareholders is absent (Rozef, 1982). The dividend is a reliable source in terms of a proxy to monitor the activities of firms. Managers can get great benefits out it through management of dividend performance of the firms can be increased. (Chumari, T. M. 2022).

Dividends can moderate this issue through free cash flow under management's influence and forces managers to capital markets for obtaining funds. Along with these features, it puts them under strict scrutiny from funders in the capital market. Jensen and Meckling (1976) say that agency costs diminish if managerial ownership increments their proprietorship in firms. Since it will adjust the enthusiasm of both managers and shareholders, but on the other side, this increase in ownership by management will cause new struggles. The directors' will endeavor to accumulate more finances under their influence by decreasing dividend payments or keeping up payout to the minimum level.

The other method to mitigate the agency problem is to take debt. It obliges firms to pay principal and interest on their debts (Khan et al., 2012). It minimizes extra money under managerial control and reduces agency costs. Furthermore, it encourages managers to make the best investment decisions, which are paramount to firms (Lasfer, 1995). To avoid the risk of non-payment, it will enable creditors the power to liquidate the firm (Harris & Raviv, 1990). Jensen (1986) proposes that debt is an accurate measure for decreasing the agency costs of excessive free cash flow (FCF) in firms. The firms with high free cash flows (FCF) have more investment opportunities in which large sums of funds have to be managed and are more likely to use these cash flows to complete projects with negative-present value.

It is the priority of each business venture to enhance the business and working conditions for the firm. In this regard, the stock market is more concerned with increasing one's financial needs. The problem of corruption and the limited stock market is another reason for a small number of investors. This study motivated the concern for regulating the dividend distribution patterns of firms. It has become a common practice among firms not to pay dividends to their shareholders.

There are many studies in Pakistan related to corporate governance or capital structure and firm performance and corporate governance and performance or dividend policy. Some studies have worked on the relationship between free cash flow and dividends or leverage from an agency theory perspective. The agency theory problem separates the interest of shareholders and managers. High free cash flow (FCF) results in management power and promotes them to subvert the firm financial activities. They make risky investment decisions and create negative cash flow for the business. Although they increase the firm of size, their revenue continues to decline.

This study will investigate whether the free cash flow, dividend, and leverage are valid

measures for firms are listed in the Pakistan Stock exchange using the annual reports of firms for the period 2010-2017. A panel regression tests the relation between free cash flow and the variable dividends payout ratio, debt ratio, capital expenditure, and total assets.

The free cash flow hypothesis is the basis on which agency theory is based (Jensen 1986). Jensen and Meckling (1976) say that there is a conflict of interest among the shareholders and managers of the firm. Managers who have high free cash flow (FCF) at their disposal are more likely to adopt a risk-taking attitude (Jensen 1986). This initiative increases their control over the firm and remuneration to managers. Kadioglu and Yilmaz (2017) conducted a similar study to find the extent of the problem of agency theory in Turkish corporations. According to Kadioglu and Yilmaz (2017), the free cash flow hypothesis is appropriate to lessen the agency theory problem in Turkey. This study confirms that in the case of more free cash flow, dividends, and debt management.

Firms work in the interests of managers to maximize their assets. This expansion is a direct indicator of the over-investing behavior of the managers. Setiany, E. (2021) says that free cash flows are the strength of companies to stay in business. Companies must maintain a certain amount of free cash flows to avoid bankruptcy. Free cash flow has an indirect effect on the capital structure. It has also affected performance (Risman, A., & Parwoto, A. S. S., 2021).

The free cash flow hypothesis is the basis on which agency theory is Zurigat, Sartawi & Aleassa (2014) presented their argument on the logic of agency theory. Poor management has a direct effect on the well-being of the company. The trust of shareholders and company reputation among potential investors is also important to keep the company running and expanding in its market. Management cannot ignore shareholders' interest by investing their free cash flows. Though over-investment is the issue that causes the agency cost to cover and exhibit loss to the shareholders. Thiruvadi, et al., (2016) says that the self-interested agency theory of managers where free cash flows and low growth firms are to engage in nonprofit maximizing activities. The author points out that growth is an element that strengthens managerial control in the US of a developed country. Even the USA has witnessed the conflict of agency theory in companies like Enron and World Com. US financial markets are much more developed than most of the nations. The USA House of Commons introduced the Sarbanes-Oxley Act (SOX) in 2002 to improve the quality and effectiveness of corporate governance. This SOX addresses the problem of internal control weakness, which gives the management control, and they happen to neglect their duty towards it's the shareholders. In addition to SOX, audit standards (SAS) statements require auditors to examine internal control and management behavior.

Doyle and McVay (2006) is highlight the weaknesses of internal control in the US firms. The purpose of the study is to check the agency theory problem. Here more focus is given to the problem of internal control. This study shows that agency theory is lies in firms that are small in size, small, and financially weak. Their management seems to be more involved in activities that do not develop for the financial well-being of the forms.

Khan, et al., (2012) studied the manufacturing sector and 100-index section of the Karachi Stock Exchange. The main idea behind the study was to understand the agency theory problem in firms in an underdeveloped country. The study authors noted that free cash flow is an indication that stakeholders should keep a close eye on. They found in their study that leverage was an appropriate measure to control free cash flows, to reduce managers' over-investment behavior. After a series of successes, managers become confident enough to participate in risk-taking activities and act like an ax for the company. That was the reason they neglected their duty to the company shareholders.

Sarayloo and Sarafi (2016) conducted their study in Iran, in which the main concern was to study the effects of dividend policy on the financial health of firms. They say that paying off dividends is in the best interest of companies. The companies that made dividend payments have a lasting effect on the financial condition. Chae, J., Kim S. & Eun, J.L., (2009) analyze the impact of corporate governance practices on the dividend policy of firms in the Republic of Korea. The author states that external financing is to study the agency problem, dividend payout, and corporate governance. The relationship among each change with a change in

the approach used. The results show that firms with strong management pay higher profits to reduce agency costs. When the firms have higher external finance, they do not pay dividends to the shareholders. These external financing decreases the dividend payouts and yet increases corporate governance practices.

A study by Kargar and Ahmadi (2013) differentiates between firms. They have growth opportunities from those that do not. They say that there is an enormous difference between them. Firms change their financial policy based on their growth prospects. They emphasize that the level of the agency cost changes with the change in activities and opportunities. Monitoring is one of the most effective ways to reduce the problem of agency theory. Karpavicius et al., (2017) studied the role of indirect oversight of US firms in his dissertation. This approach is appropriate for reducing the free cash flow (FCF) for firms and thus eliminates the problem of agency theory. However, the rise in corporate ownership could affect firms' debt and profitability policies. But at the same time, it is an effective method to keep management in check and maintain an optimal level of free cash flow (FCF) in firms. Guizani M. (2018) states that dividend is an important measure and can play a vital role in monitoring corporate governance activities. It spotlights the issue faced by emerging economies of developing countries. The result confirms that managers increase free cash flow by paying low dividends. Thus, managers retain personal benefits out of these cash holdings. It adds that the board characteristics can be specified and increased to avoid misapplication of the funds.

Nguyen, A., & Nguyen, T., (2018) says if extensive information is available to shareholders, internal management will not be in a position to misuse free cash flow (FCF) available to them. Titman et al. (2004) view capital expenditure major factor. It is not to be taken lightly by investors and firm shareholders. Heavy investment expenditure can lead toward higher returns. Managers do not consider the negative return on investment when making investment decisions. These negative returns influence firms with high free cash flow (FCF), low debt ratios have the potential for over-investment. Bhabra and Rooney (2019) say that more control over capital expenditure can create value for firms. The managers can create value through the investments. This study adds to evidence of the literature agency theory. The free cash flow hypothesis is to test the following:

- H1: The dividend payout ratio has a negative, significant impact on free cash flow.
- H2: The long-term leverage has a negative and significant influence on free cash flow
- H3: Capital expenditure has a positive and significant influence on free cash flow.
- H4: The size of the firm positively affects the free cash flow.

3.0 Conceptual model

The purpose of this is to test the relationship between free cash flow and other independent variables. The conceptual framework and hypothesis of the study have illustrated in Figure 1.

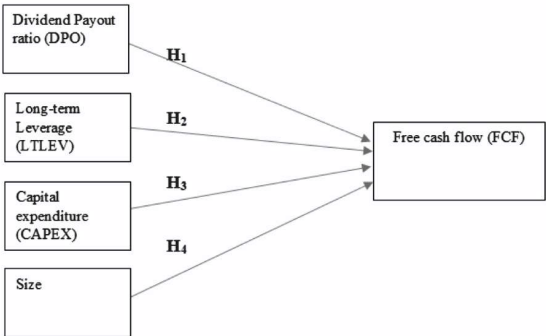


Figure 1.
Conceptual model of the study

4.0 Methodology:

4.1 Population and sample

The population of this study includes five industrial sectors quoted in the Pakistan stock exchange as of December 2017. They include cement, fertilizer, pharmaceutical, sugar, and textile firms. Purposefully, the sample size of this study consisted of 200 firms in these fields. But they were not continuously listed on the Pakistan Stock Exchange from 2010 to 2017. The sample consists of 119 firms as they are constantly on the stock exchange, their financial statements are available online. The list of these firms is available in Annexure A.

Category	Freq.	Percent	Cum.
Cement Sector	152	15.97	15.97
Fertilizer	56	5.88	21.85
Pharmaceutics	56	5.88	27.73
Sugar Sector	160	16.81	44.54
Textile mills	528	55.46	100

Note. (N=952)

4.2 Sources of Data

This study used the secondary data that is extracted from the annual reports and dividend payment from Pakistan stock exchange website.

4.3 Methodology

This study investigates the agency theory problem in Pakistan's listed companies. This study examines the effects of profit and leverage on companies' free cash flow. The core of the study is to control the amount of free cash flow under the manager's control to protect the interest of stakeholders to avoid agency problems among them and maintain the confidence of the shareholders in the market. The free cash flow is an indicator through which we can detect activities of the firms that are not for the benefit of the shareholders. Here are study variables like dividend payout ratio and leverage is to reduce the excess cash flow. The following equation uses panel regression on the data of firms trading on the Pakistan Stock Exchange from 2010 to 2017. Kadioglu and Yilmaz (2017), Khan et al. (2012), Wells et al. (1995), Kargar and Ahmadi (2013) used similar forms of the equation to test the variables listed below in varying combinations. The regression equation for the current study is as follows:

$$FCFi = \alpha + \beta_1 DPO_i + \beta_2 LTLEV_i + \beta_3 CAPEXP + \beta_5 SIZE + \varepsilon_i$$

Where:

FCF = Free Cash Flow

DPO = Dividend Payout ratio

LTLEV = Long term leverage

CAPEXP= Capital expenditure

Size = Total asset logarithm

ε_i = Error term

Table 2 shows the lists of variables used in the study. They are calculated using the figures from company financial statements.

Table 1.
Frequencies of the
Category

<div>GBR</div> <div>Vol. 18</div> <div>30</div> <div>Table 2.</div> <div>Variables, Acronym and</div> <div>Explanation</div>	Sr.#	Variables	Type	Formulation
	1	Free Cash flow (FCF)	Dependent	(Operating net income + depreciation expenses - corporate income tax- interest expenses - cash dividends)/total assets
	2	Dividend Payout Ratio (DPO)	Independent	Dividend per share/ earning per share
	3	Long term Leverage (LTLEV)	Independent	Long-term debt/total debt
	4	Capital Expenditure (CAPEXP)	Independent	Capital expenditure divided by total assets
	5	Firm Size (Size)	Independent	Total asset logarithm

5.0 Results

The study is a contribution to the literature of the firms listed in the Pakistan stock exchange. The idea of monitoring the activities of the firms is to ensure the corporate governance practices and to empower the stock market by avoiding any financial outrage that can reduce financial activities in the country. As the Pakistan stock exchange is not a depth market and has many layers that are still under construction, it is not easy to find major frauds that the happening so far. This study aims to draw attention to corporate malpractices to increase the general population's contribution to the stock market.

Table 3 shows the descriptive statistics of all variables. It gives the mean, median, maximum, minimum, standard deviation, skewness, and kurtosis values of the variables.

<div>Table 3.</div> <div>Descriptive Statistics of</div> <div>the Variables</div>	Stats	FCF	DPO	LTLEV	CAPEXP	Size
	Mean	1,360,000,000	0.74	1.50	0.16	9.63
	Median	224,000,000	0.04	0.15	0.03	9.57
	Min	-643000000	-1.92	0	-4.99	1.14
	Max	16,600,000,000	77.88	786.46	78.49	11.51
	SD	3,820,000,000	5.42	29.10	2.63	0.68
	Variance	8,370,000,000,000,000,000	29.38	846.88	6.93	0.46
	Skewness	3.62	11.16	24.11	28.18	-1.85
	Kurtosis	16.84	132.31	608.81	829.10	27.29

Free Cash Flow (FCF)	(Operating net income + depreciation expenses - corporate income tax - interest expenses - cash dividends)/total assets
Dividend Payout Ratio (DPO)	Dividend per share/ earning per share.
Long Term Leverage (LTLEV)	Long-term debt/total debt
Capital Expenditure (CAPEXP)	Capital expenditure divided by total assets.
Firm Size (Size)	Total asset logarithm

Descriptive Statistics are calculated by using 952 observations.

The observations in 6.2 that the Free Cash Flow (FCF) ranged from -643000000 to 16,600,000,000, with an average of 1,360,000,000. The median has a value of 224,000,000 and variance is 8,370,000,000,000,000,000 (SD = 3,820,000,000). Dividend Payout Ratio (DPO) observations ranged from 1.923 to 77.881. It has an average of 0.833 (Median = 0.046) and variance is 32.971 (SD = 5.74). The observations for long-term Leverage (LTLEV) ranged from 0 to 786.466 with an average of 1.359 (Median = 0.154) and Variance is 752.871 (SD = 29.101). The observations for Capital expenditure (CAPEX) ranged from -4.995 to 78.499, with an average of 0.149 (Median = 0.033) Variance is 6.169 (SD = 2.482). Firm size observations

ranged from 1.146 to 11.510, averaging 9.648 (median = 9.583) and variable 0.465 (SD = 0.682). The variables are positively skewed, such as Free Cash Flow (FCF) is positively skewed by 3.870. For the Dividend payout ratio, descriptive statistics show a positive skewness of 10.067. Long Term Leverage (LTLEV) is skewed positively with a value of 25.581.

Impact of Dividend and Leverage on Free Cash

31

The capital expenditure (CAPEX) is skewed positively by a minimum value of 29.848. The size of firms (Size) is skewed negatively with a value of -1.661. It is the only variable that is negatively skewed from all the variables, as shown in Figure 6.2.

To show strength and direction among the variables, we have used the Pearson correlation matrix. Table 3 shows the correlation matrix for the variables used in the study. The size of firms (Size) is skewed negatively with a value of -1.661. To show strength and direction among the variables, we have used the Pearson correlation matrix. Table 3 shows the correlation matrix for the variables used in the study.

	FCF	DPO	LTLEV	CAPEXP	Size
FCF	1				
DPO	0.049**	1			
LTLEV	0.063***	-0.006***	1		
CAPEXP	0.079***	-0.003**	0.964	1	
Size	0.576	0.072***	-0.116	-0.095***	1

Table 4.

This table shows the Pearson Correlation matrix of all the variables in this study.

Note. *p< .01, **p <0.05 ***p <0.1

To show the strength and direction among the variables, we have used the Pearson correlation matrix. Table 4 shows the relationship between the two variables in a tabular form. The dividend payout ratio (DPO) has a significant relationship at 1% with the FCF. Long-term Leverage (LTLEV) and Capital expenditure (CAPEX) have a relationship at 5%.

This study supports the argument of the agency theory problem where the manager and the shareholders have a conflict of interest. It leads to a situation where managers engage in activities that develop resources for them rather than shareholders and often result in negative cash flow.

Jensen (1986) suggests that the free cash flow assumption is an indication that shareholders, stakeholders, and auditors should be careful about the activities of managers, which can lead to unintended consequences. Excessive free cash flows can result in high agency costs. We have a negative relationship of dividend payout ratio and leverage with the free cash flow to minimize the cash flow at the managerial end.

The regression equation runs on Statistics and Data Science (Stata) software. Table 5 shows the results of the study. First, we have used the ordinary least square (OLS) model to test the relationship but did not show significant results. The study applied a fixed-effect model and a random effect model for the significance of the results.

The study applied the fixed-effect model and random effect model for the significance of the results. Hausman test technique is applied to decide between the two models. It investigates the relation of free cash flow assumption in Pakistani firms. The Hausman test significant results supported the fixed effect model that shows a negative but insignificant relationship between the dividend payout ratio (DPO) and the free cash flow (FCF) hypothesis.

Table 5 shows the results of regression for equation i.e. (FCF, = 0 + 1 DPO, + 2 LTLEV, + 3 CAPEXP, + 4 Size, + e,). First column shows the variables, R2 and Hausman test. Here FE stands for the Fixed Effect Model and RE presents Random Effect Model.

Table 5.
Results of Fixed Effect
Model and Random Effect
Model.

Independent Variables	FE Model	RE Model
DPO	-0.43	0.12
	(-0.664)	(0.902)
LTLEV	-3.00	-2.06
	(0.003) **	(0.039) **
CAPEXP	3.23	2.8
	(0.001) *	(0.005) *
Size	2.27	7.11
	(0.024) **	(0.0000) *
R ²	0.233	0.342
Hausman test	90.84 (p> 0.000) **	

a. *p< .01, **p <0.05 ***p <0.1

a. Dependent Variable: FCF

The VIF test checked the issue of multicollinearity in variables. High multicollinearity can lead to undesirable results. Table 6 reports that the mean Variance Inflation factor (VIF) is 7.71. It is below 10 VIF and is an acceptable level. The VIF for the dependent variables is low that they do not correlate with each other.

This table shows the result of VIF test. As value is less than 5m it means that there is no issue of multi-collinearity in the data.

Variable	VIF	1/VIF
LTLEV	14.44	0.069233
CAPEXP	14.38	0.069536
Size	1.02	0.977746
DPO	1.01	0.99479
Mean VIF	7.71	

Table 6.
VIF (Variance Inflation
factor) Test Results

Note. (N = 952)

6.0 Discussion

Agency theory is one of the main concerns of corporate governance. Many studies analyzed the assumption of free cash flow to eliminate the agency's problem. This study looked at ways to reduce agency theory and increase the value of firms. For this purpose, a panel data regression was run from 2010 to 2017 in Pakistan's firms. The fixed-effect model supported the hypotheses in our study. These outcomes show that paying out a dividend is an approach to reduce cash flows. That is not the case for Pakistan. The results contribute to the literature on corporate governance practices in Pakistan. This study supports the idea of decreasing free cash flow through dividend payments, but debt is more suitable for firms. It further adds that companies can generate more value for firms using capital expenditure. Khan, A. et al., (2012) studied a similar relationship in firms of Pakistan the dividend to mitigate free cash flow (FCF). The results of this study are parallel to the outstanding dividend theory, which holds that companies are more interested in making a profit than they earn in dividends rather than paying dividends. Managers always prioritize spending on their business plans. The results are inconsistent with Kadiogulu 2017 shows a negative and significant relationship at 1%. Findings supported the hypothesis that paying out dividends can reduce the cash flow in Turkish firms. Guizani (2018) reported the same results as the statement of Kadiogulu (2017), Smith and Watts (1992), and Gugler (2003) in his study. The author further says that paying dividends can reduce the free cash flow in Shariah compliance and non-Shariah compliance.

Firms with high earnings always avoid costs to gain high profits. The strong correlation between free cash flow and profit, and profit-sharing could reduce cash flow. Arfianny (2020) reports comparable results where free cash flows have a negative and insignificant

relationship with the dividend payout ratio. The author emphasizes that the insignificant relationship causes dividends to shrink to a small level and in our study, many firms were found where firms are almost not paying any dividends. This could be a case because firms are independent in their affairs by the pecking order theory.

The results in table 5 indicate that the long-term leverage (LTLEV) has a negative and significant relationship with the free cash flow (FCF). These results show that loans held for more than a year can help reduce free cash flow. These results state that loans held for more than a year can help reduce free cash flow. As expected, the long-term leverage can reduce the finances in the company, and thus we can keep the managers in check. The presence of debt in the capital structure of companies is beneficial, as they must meet their obligations towards the debtors. This financial leverage can bring down the excess cash that can be used for the over-investment by the management. The debt is a measure of free cash flow (FCF). According to the hypothesis, the debts relation lessens free cash flows (FCF). It is helpful to include the leverage into the business equation of the company because, through this induction, managers can be held responsible for the shareholder and stakeholders of the company. The consistent payable to the creditors will reduce the cash flows in managerial excess and thus reduce the agency cost.

Khan et al., (2012) say that maintaining an optimum level of debt and equity in the capital structure helped reduce free cash flows in the manufacturing sector of Pakistan in 2013. He says lenders can monitor the activities of firms and can help avoid additional agency costs. Guizani (2018) uses a similar model to test the relationship between free cash flow and leverage in the Gulf corporation council countries' firms. The study found that debts can reduce the amount of free cash flow in Sharia compliance and non-Sharia compliance. Hence, creditors of firms can influence the activities of the managers and can act as a governance instrument to maintain good governance practices to avoid the agency problem. Kadioglu and Yilmaz (2017) examined the effects of leverage and long-term leverage separately and found a negative correlation between the two variables with free cash flow in Turkish firms. We have only benefited from long-term leverage in our regression equation. It has shown negative relationships of long-term leverage (LTLEV) with free cash flow. Byrd (2010) says that the debt can change the magnitude of the investment. The debt obligation restricts the manager. While making investments shareholders, should look for the capital structure of firms. There will be fewer problems of can be agency theory conflict.

The next variable is capital expenditure (CAPEX), which has a positive and significant relationship with free cash flow (FCF). The capital expenditure (CAPEX) also contributes to the value of the company. Capital expenditure was a new concept in the study, showing a positive relationship with free cash flow (FCF). Capital expenditures not only help to reduce excess cash. The capital expenditure can increase the value of firms stated in the literature. Bhabra & Rooney (2019) say that capital expenditure is also an important indicator to reduce agency theory problems in firms. They say that besides cash and investment projects capital expenditure is a channel through which cash manipulation can be made. Bhabra & Rooney (2019) in their study expatiate the importance of capital expenditure in maintaining a balance among the shareholders and managers of the firm. The comprehension is that an extra dollar spent on capital expenditure must create value for the firm. Thiruvadi, et al., (2016) used capital expenditure in his study but suggest that the managers who spend more on capital expenditure bring more concern about agency problems.

The size of the firm has a significant and positive relationship with free cash flow (FCF). The size was calculated through the natural log of all the assets, which depicts current and fixed assets well. The results indicate that increase in a firm's size can reduce the free cash flow (FCF), it can also be a way through which managers can gain personal interest. Kadioglu and Yilmaz (2017) has tested a similar hypothesis in his paper, where size had a positive correlation with the free cash flow and these results support the free cash flow (FCF) hypothesis. These results were true for the Turkish firms and after investigation, we find the results are the same for firms operating in Pakistan as quoted by Khan, A., et al., (2012) in their study. The study says that the increase in the size of a firm reduces the problem of agency theory.

Limitations of the Study

The free cash flow (FCF) is a crucial variable in maintaining the corporate practice and avoiding conflict of interest among the management and shareholders.

- The study is only suitable for the firms operating in Pakistan. The data were limited to only cement, sugar, fertilizer, pharmaceuticals, and textile. So there might be the chance that it will not be suitable for other sectors.
- The focus of the study was on the non-financial sector. These are not suitable for the non-financial sector of Pakistan. Free cash flow is one factor that organizes corporate governance practices.

Directions for Future Research

The study encourages new researchers to study a more robust model to test the relationship. Free cash flow is a contributor to the firm's performance. The ownership structure is a phenomenon that decreases the payment of dividends to minor shareholders. It is recommended for the stock exchange of Pakistan to make it mandatory for active Corporations to make their virtual presence and provide financial reports online for stakeholders convincing.

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An empirical study on Personal Factors of Employee Engagement in BPO Industry

An empirical study on
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BPO Industry
36

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Abstract

Purpose: The paper explores Personal Factors as one of the factors of Employee Engagement of the employees. Employee's Personal factors comprises the intrinsic motivation of employees. It implies that employees are satisfied on the job.

Methodology: A survey of 350 employees was conducted across 5 NASSCOM listed BPO companies. The itemized scale used in study consisted of 5 items. To understand the relationship, chi-square analysis is performed.

Findings: The results indicated that there is positive association between Personal factors and Demographic characteristics of employees.

Research implications

In this study, the researcher will attempt to bridge the gap between theory and practice in terms of Employee engagement. The dimensions related to the Personal factor identified will form the base for further investigation in BPO Industry.

Practical implications: The study will also add to the body of knowledge on Employee engagement, allowing future researchers to investigate a more comprehensive view of Employee engagement.

Social implications: The study will prove to be beneficial with a Industry plagued with retention and turnover issues.

Originality/Value: The study is focused towards evaluating Personal factors in terms of Employee engagement. Therefore, act as a management fad towards fixing the issues related with employees in the Industries.

Key words: Personal Factors, Employee Engagement, Industry

1. Introduction

Colbert et al (2004) acknowledged that the perception process determines employee's behaviour. Different aspects related to an personality, past experiences, knowledge, expectations and current needs, priorities and personal characteristics of employees (Robinson, 2006) results in varied behavioural outcomes like proactive personality (Shuck et. al, 2010), organization based high self-esteem (Vruga et. al, 2015), belief in organization, desire to work to make things better, understanding of the business context (Appelbaum et. al, 2005), self-initiated work behaviours such as voice, job crafting and proactive performance (Tims et. al, 2013). Interestingly, Personal behaviour of employees influences organizational productivity (Hausknecht & Holwerds, 2013).

Research revealed that only 13 percent of worldwide employees are fully engaged at work and twice of them are so disengaged (Gall-up, 2006) that they spread this negative behaviour to other employees as well. The existing research is limited by the knowledge, experience, skills and techniques of communication and the strategy which companies can use to engage their employees and can manipulate the behaviours of employees (Bersin, 2014). Generally, the industries are plagued with personal job-related issues of employees (Tampu & Cochina, 2015; Davidescu et al., 2020) therefore investigating a more comprehensive view



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2. Literature Review

2.1 Employee Engagement

Engagement provides organization, the tools to create the kind of working environment that attracts, retains and motivates their employees (Conference board of USA, 2006). Deloitte Employee Engagement Perspectives (2017) reported that linking Employee engagement with the outcomes of business i.e. productivity, revenue growth, performance & retention, makes 2.3 times greater difference than average on revenue growth, 57% on productivity, and 87% of employees seems to be willing to retain as compared to the organization with low engaged workforce (Schaufenbuel, 2013). The current age of technology is followed by the distinct migration movements that are usually surrounded by the diversified workforce therefore for maintaining sustainability, the diversity management policies at individual levels related to Personal factors should be considered (Alshaabani, 2021).

The framework of Lawrence (2016) been considered for the study. It consists of 8 factors i.e. quality of relationships, career, behaviour, organizational factors, recruitment, rewards and recognition, wellbeing and personal factors. The framework was used for doctoral research. This framework includes Personal factors as one of the dimensions of Employee engagement. All the other previous studies and models (Utrecht Work Engagement Model, 2002; Job Demand-Resources Model of Employee Engagement, 2006; Combs, Clapp-Smith & Nadkarni, 2010; Sharma, Goel, Sengupta, 2017; Shrotryia & Dhanda, 2020; De-la-Calle-Durán & Rodríguez-Sánchez, 2021) do not mention the Personal factors as one of the dimensions of Employee engagement. Therefore, Lawrence (2016) framework was considered for the study as it was more broad-based and helped understand the response across various demographic factors i.e. gender, age-groups, marital status, working experiences and Job positions. A number of studies have been conducted investigating the relationship between Employee engagement and Personal factors. There is a dearth of the literature that proves that Personal factors is a part of Employee engagement. Based on Literature review, the indicators of Personal factors are defined.

2.1.1 Personal Factors

Personal factors comprises of the intrinsic motivation of employees. It implies that employees are satisfied on the job (Ryan & Deci, 2000). Personal factors of employees involve an employee's positive attitude, proactiveness, optimism, conscientiousness and degree of efficiency that engages the employees (Wollard & Shuck, 2011). The employee's Personal factors bonds with an individual's personal satisfaction and sense of motivation (Perrin, 2003). According to Opatha & Teong (2014), Personal factors involve the character of the individual that contributes significantly to the growth of his or her organization and society. The traits like job insecurity, organizational trust (Alshaabani et al., 2022), employees psychological capital, (Paek et. al, 2015; Chaurasia & Shukla, 2014), low task proficiency (Boon & Kalshoven, 2014), high conscientiousness (Bakker et. al, 2012; Handa & Gulati, 2014), self- assertiveness (Woods & Sofat, 2013), emotional stability (War & Inceoglu, 2012), core self-evaluation (Lee & Ok, 2015), personality (Karatepe & Aga, 2016) and personal relationship (Crabtree, 2005) determines Personal factors.

Personal factors like blaming or allegations somehow restricts organizational learning and growth of employees (Vince & Saleem 2004; Shilling & Kluge 2009; Provera et al. 2010; Tjosvold et al. 2004; Gronewold et al. 2013; Uribe et al. 2002; Busby, 2006). However, it is extremely difficult to sustain no-blaming culture in organization (Provera et al. 2010). According to Mahdi et al. (2021), Personal factors are influenced by workplace ethics, non-monetary benefits, quality of relationships between superior and subordinate, training and job redesign to an extent.

For the organization to gain the competitive advantage, the Personal factors like individual learning and innovative behaviour of employees is required (Atatsi et al., 2019). Other factors like employee empowerment also plays a significant role in developing the pro-

active behaviour of the employees (Tuffaha, 2020). While revamping the workplace design or introducing any technology, the Personal factors like perspectives of the employees should be included as it frames their levels of intrinsic motivation and Job satisfaction (Schmid & Dowling, 2020). The personal factors of the employees is dependent on the facyors like employee loyalty and their work quality (Cheng et al., 2022), interpersonal trust and quality of relationships between employees and manager (Buli´nska-Stangrecka, & Bagie´nska, 2021).

Following all the indicators of Personal factors:

Indicator 1: Employees Take Responsibilities or Often Blame Others

Blaming the employees restricts organizational learning of employees (Vince & Saleem, 2004; Busby, 2006; Provera et al., 2010; Chughtai, 2013). Morales-Vives et al., (2022) also investigated the employee's work-related and psychosocial factors of employees. When employees are free from the allegations, they engage with others and enable organization to improve their operations (Provera et al. 2010). However, it is extremely difficult to sustain no-blaming culture (Provera et al. 2010). The manager's attitude, controlling power, behaviours, familiarity with employees shapes the employees perceived personal gains regarding ethical responsibility and being productive towards the organization (Basahal et al., 2021). The organizational culture where the task-oriented behaviour of superior is favourable, the organization survives with less physiological and psychological stress related issues of employees (Omoankhanlen & Eyakephovwan, 2022).

Indicators 2: Employee's Degree of Resilience

Resilience is the ability of the employees to response the internal and external organizational adversity like production pressure, stakeholder demand etc. (Vogus et al., 2003; Luthans, Youssef, & Avolio, 2007). It increase employee's potential to meet the future challenges (Richardson, 2002). There are several degrees of resilience that exists in literature, so far with context to individual and organization such as personal resilience, trait resilience, psychological resilience, emotional resilience, career resilience, and ego resilience (Bolton, 2004; Waugh, Fredrickson & Taylor, 2008, Paul, Bamel & Garg, 2016; Paul et al., 2019). Therefore, the organization should seek the way in which the basic psychological needs of employees could be fulfilled during the particular intervals of time and they feel satisfied with their job (Coxen at el., 2021).

Indicators 3: Employee's Personal Goals or Team Goals

In the stimulating organizational environment, where employees are externally derived by company's vision and mission, the feeling of accomplishment does not come until it reaches from working towards one's personal oriented goals (Boyatzis and Akrivou, 2006). Generally at workplaces, the employees are trained to comply with organizational vision, which is indifferent to that employees owns (Boyatzis et al., 2012); rather than advancing towards personal goals, employees are working hard for someone else goals (Boyatzis and Akrivou, 2006). To this, Deci and Ryan (2000) claimed that this is something that can work very well but for some time only, until the employees realised that their personal directed goals are compromised (Boyatzis and Akrivou, 2006). This could have negative impact on employee's motivation (Boyatzis and Akrivou, 2006). The Personal factors like the perception of individuals with quality of relationship with manager, compensation, job fitness, autonomy at work affects the level of Job satisfaction at their workplace (Cao et al., 2022). The manager's time spend on communicating the company related goals and mission, personal evaluation of the employees, and in delivery timely recognition to employees determines their commitment levels towards their organization (Basahal, 2021).

Indicator 4: Employee's Growth Mind-Set

The growth mindset of employees is affected by the change in lifestyle choices, occupational comfort, quality of work and work commitment of employees (Zhang et al., 2021). The growth mind-set of employees stands out with the assumption that employees could greatly develop their abilities (Heslin, 2010). The growth mind-set of employees enhances the employee's zeal for development, alertness for the information and utilizing efforts (Heslin, 2010). The employee's growth-mind-set helps to predict the continuum of improvement and failure in employee's performance (Heslin et al, 2010; Keating & Heslin, 2015). Individuals with broad

mind-set believes in the plasticity of their personal characteristics and traits (Canning et al., 2019).

Indicator 5: Employees Taking Responsibility of their Own Learning

Workplace learning of employees is self-directed in nature that occurs informally (Yeo, 2008; Billett 2014). Work practices based learning's are for the means of employee's competence development (Manuti et al. 2015). Organizational projects and assignments administer the flexible self-directed teams to cope up with the different tasks (Moe et al. 2008; Lee & Edmondson 2017; Collin et al., 2021). The responsibility for learning at work also depends on the individual employees (Ellinger 2004; Friedman, 2005). In order to support the employees in their self-learning the Personal factors like gain of knowledge, perceived organizational support, self-efficacy, employee employability, and subjective wellbeing should be on the priority list of the organization (Lee et al, 2021).

3. Research Methodology

Population comprises the employees working in BPO companies in Noida City region of India. The study was descriptive and sample size was 350. The sampling procedure used to collect was Quota Sampling. Quota sampling was made on the basis of gender, age & working experience of employees.

3.1 Research Objective

To examine the role of demographic characteristics on the personal factors of employees working in the BPO Industry.

Ho: There is no significant difference in Personal factors of BPO employees across demographic variables

Ha: There is significant difference in Personal factors of BPO employees across demographic variables

3.2 Survey Instrument

The questionnaire was distributed among the employees working in different BPO departments. They were from Training, HR, Administration, IT, Quality Assurance & Operations.

The questionnaire had two parts and was part of a doctoral work on Employee engagement. Part A of questionnaire was designed for demographic survey, and had multichoice category questions on gender, age, education status and income level, marital status, working experience and job positions.

Part B of the questionnaire measured Employee engagement on dimensions of Personal factors of employees. The dimensions were covered by 5-items rated on a 5-point scale where 1-Strongly disagree and 5-strongly agree.

The items were filtered from scales of Stress-In-General (SIG) (Stanton et al., 2001); Rewarding Coworker Relation Scale (Rich, 2010); Discretionary Effort Scale (DES) (Lloyd, 2008) and sub scale of Work-Design Questionnaire (WDQ) (Morgenson & Humphrey, 2006). These scales are used in the study because they are associated with the varied degrees of Personal factors of employees and are validated to measure the different Personal factors associated with the employees (Smith et al., 1992; Stanton et al., 2001).

After the content validity, the overall reliability was tested through Cronbach alpha and was found to be .983. The values calculated for Cronbach's alpha above values of 0.7 or 0.6 are acceptable (Griethuijsen et al., 2014).

For the analysis, the results for 5 items under dimension "Personal factors" have been covered. The Cronbach alpha of all items are .786, .867, .715, .753, .879, .856 and are above the recommended one hence are valid to evaluate the Personal factors of employees.

3.3. Statistical Analysis

To know whether the two variables are statistically related to each other or not, the chi-square test is used.

The chi-square formula is,

$$\sum (O_i - E_i)^2 / E_i$$

While, O is the observed frequency, E is the expected frequency.

4. Results

The sample was selected from the different BPO Organizations in the Noida region; the participants were from 10 BPO Companies. In the study, the Chi-Square test is conducted to study the difference between observed variables and expected variables.

Gender of employees	GENDER	Respondents
	Female	89
	Male	261
	Total	350
Age-Groups of employees	AGE CRITERIA	Respondents
	18-21 year	10
	21-24 year	136
	24-27 year	110
	27-30 year	41
	Above 30 year	53
	Total	350
Marital Status of employees	MARITAL STATUS	Respondents
	Single	182
	Unmarried	61
	Married	107
	Total	350
Working-Experience of employees	NO. OF YEARS	Respondents
	2 year	48
	3 year	59
	4 year	27
	5 year	16
	6 year	6
	Above 6 year	37
	Less than 1 year	157
	Total	350
Job-Role of employees	JOB ROLE	Respondents
	Quality Analyst	14
	Process Analyst	49
	Team Leader	65
	Coordinator	52
	Administrator	53
	Others	60
	Trainer	57
	Total	350

Table 1.
Descriptive Statistical
Data

4.2 Results on Personal Factors

4.2 (a) Employees take Responsibilities or Often Blame Others

Table 2.
Rating on Personal Factor
item 'I can communicate
job frustrations to my
supervisor' across
demographic variables
(Rating on a scale of 1-5)

Variable	Options	Strongl y Disagr ee (1)	Disagr ee(2)	Neut ral (3)	Agre e (4)	Strongl y Agree (5)	Total	Chi-Square		
Gender	Male	19	45	33	148	12	261	43.85 ^a	Df=4	P=.105
	Female	3	23	14	43	8	89			
Total		22	68	47	191	22	350			
Age	18-21 year	0	0	0	8	2	10	23.16 ^a	Df=16	P=.001
	21-24 year	9	32	22	69	4	136			
	24-27 year	12	9	11	66	12	110			
	27-30 year	0	18	7	13	3	41			
	Above 30 year	1	9	7	35	1	53			
Total		22	68	47	191	22	350			
Marital Status	Single	17	45	26	90	4	182	33.93 ^a	Df=8	P=.001
	Married	5	18	16	59	9	107			
	Unmarried	0	5	5	42	9	61			
Total		22	68	47	191	22	350			
Working Experience	Less than 1	5	38	20	82	12	157	18.16 ^a	Df=28	P=.079
	2 year	4	9	10	24	1	48			
	3 year	8	9	0	42	0	59			
	4 year	4	0	9	14	0	27			
	5 year	0	1	1	6	8	16			
	6 year	0	0	0	6	0	6			
	Above 6 year	1	11	7	17	1	37			
Total		22	68	47	191	22	350			
Job Position	Team Leader	9	11	6	34	5	65	24.43 ^a	Df=24	P=.068
	Quality Analyst	0	4	1	9	0	14			
	Process Analyst	4	21	4	20	0	49			
	Coordinator	0	13	15	16	8	52			
	Administrator	1	3	7	41	1	53			
	Trainer	0	8	0	49	0	57			
	Others	8	8	14	22	8	60			
Total		22	68	47	191	22	350			

Table 2 shows the demographic-wise rating of employees on a 5-item scale of 1 to 5 (where 1-Strongly disagree and 5-strongly agree) on the Personal Factor item-"I can communicate Job frustrations to my supervisor". Employees communicating job frustration to the immediate supervisor was one such factor that measured 'Employees take responsibilities or often blame others'. The degree to which an employee's job frustration is communicated to their superior determines whether the employee's grievance handling procedure is taken as an important HR strategic policy by the outsourcing companies or not.

The chi-square value (43.85) of gender of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (18.16) of working experience of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (24.43) of job positions of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The p-value is not less than 0.05 hence, there is no evidence to suggest that the null hypothesis is not true. There is a difference in the personal factors relating to the employees working in the BPO sector in communicating their job frustration to the supervisor's across gender, working experience and job positions. While the chi-square value (23.16) of the employee's age-group was found to be statistically significant, the difference between observed and expected value was significant. The chi-square value (33.93) of employee's marital status was found statistically significant meaning the difference between observed and expected value was significant. The p-value is less than 0.05 hence, there is evidence to suggest that the null hypothesis is true. There is no difference in the personal factors relating to the employees in communicating their Job frustrations to their immediate supervisors across different age-groups and marital status. Table 4.2 (a) indicated that the

4.2 (b) Employee's Degree of Resilience

Variable	Options	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total	Chi-Square		
Gender	Male	4	41	53	124	39	261	18.22 ^a	Df=4	P=.354
	Female	0	16	25	36	12	89			
Total		4	57	78	160	51	350			
Age	18-21 year	0	0	4	6	0	10	19.63 ^a	Df=16	P=.031
	21-24 year	4	33	24	63	12	136			
	24-27 year	0	8	25	56	21	110			
	27-30 year	0	12	3	13	13	41			
	Above 30 year	0	4	22	22	5	53			
Total		4	57	78	160	51	350			
Marital Status	Single	4	49	23	90	16	182	30.84 ^a	Df=8	P=.091
	Married	0	4	48	50	5	107			
	Unmarried	0	4	7	20	30	61			
Total		4	57	78	160	51	350			
Working Experience	Less than 1	0	45	21	70	21	157	18.52 ^a	Df=28	P=.083
	2 year	0	8	13	17	10	48			
	3 year	4	0	17	27	11	59			
	4 year	0	0	9	18	0	27			
	5 year	0	0	1	15	0	16			
	6 year	0	0	5	1	0	6			
	Above 6 year	0	4	12	12	9	37			
Total		4	57	78	160	51	350			
Job Position	Team Leader	0	5	31	21	8	65	25.16 ^a	Df=24	P=.029
	Quality Analyst	4	4	1	5	0	14			
	Process Analyst	0	22	2	18	7	49			
	Coordinator	0	8	25	9	10	52			
	Administrator	0	0	9	33	11	53			
	Trainer	0	4	0	48	5	57			
	Others	0	14	10	26	10	60			
Total		4	57	78	160	51	350			

Table 3.
Rating on Personal Factor
item 'At my job, I am very
resilient, mentally' across
demographic variables
(Rating on a scale of 1-5)

Table 3 shows demographic-wise rating of employees on a 5-item scale of 1 to 5 (where 1- Strongly disagree and 5-Strongly agree) on the Personal Factors item-"At my Job, I am very resilient, mentally". Employees experiencing mental resilience was one such factor that measured 'Employee's degree of resilience at workplace'. The degree to which employees experience mental resilience at their job determines whether an employee's learning and development policies are taken as an important HR strategic policy by the outsourcing companies or not.

The chi-square value (18.22) of gender of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (30.84) of marital status of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (18.52) of working experience of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant.

The p-value is not less than 0.05 hence, there is no evidence to suggest that the null hypothesis is not true. There is a difference in the Personal factors relating to the employees working in BPO sector in experiencing mentally resilience at their workplace across gender, marital status and working experience. While the chi-square value (19.63) of the employee's age-group was found to be statistically significant, the difference between observed and expected value was significant. The chi-square value (25.16) of an employee's job position was found statistically significant meaning the difference between observed and expected value was significant. The p-value is less than 0.05 hence, there is evidence to suggest that the null hypothesis is true. There is no difference in the personal factors relating to the employees working in the BPO industry in experiencing mental resilience across different age-groups and job positions. Table 4.2 (b) shows that the extent to which employee's experience mental and psychological resilience at their workplace was not only comparatively lower in comparison to the whole sample in terms of gender, marital status and working experiences but was also as expected. However, in terms of employee's age-group and their job positions, the extent to which employee's mental resilience was comparatively lower in comparison to the entire sample selected and was not as expected.

4.2 (c) Employees Personal Goals or Team Goals

Variable	Options	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total	Chi-square		
Gender	Male	9	21	47	138	46	261	16.54 ^a	Df=4	P=.002
	Female	3	10	26	23	27	89			
Total		12	31	73	161	73	350			
Age	18-21 year	0	0	5	5	0	10	25.88 ^a	Df=16	P=.031
	21-24 year	4	18	17	71	26	136			
	24-27 year	4	13	38	42	13	110			
	27-30 year	4	0	10	9	18	41			
	Above 30 year	0	0	3	34	16	53			
Total		12	31	73	161	73	350			
Marital Status	Single	8	22	26	78	48	182	36.39 ^a	Df=8	P=.561
	Married	4	0	29	50	24	107			
	Unmarried	0	9	18	33	1	61			
Total		12	31	73	161	73	350			
Working Experience	Less than 1	4	30	12	65	46	157	74.5 ^a	Df=28	P=.022
	2 year	0	1	16	24	7	48			
	3 year	8	0	14	33	4	59			
	4 year	0	0	17	7	3	27			
	5 year	0	0	10	5	1	16			
	6 year	0	0	3	2	1	6			
	Above 6 year	0	0	1	25	11	37			
Total		12	31	73	161	73	350			
Job Position	Team Leader	0	10	12	42	1	65	23.03 ^a	Df=24	P=.082
	Quality Analyst	0	4	0	5	5	14			
	Process Analyst	4	4	8	10	23	49			
	Coordinator	0	9	10	22	11	52			
	Administrator	0	0	25	21	7	53			
	Trainer	4	0	1	47	5	57			
	Others	4	4	17	14	21	60			
Total		12	31	73	161	73	350			

Table 3.
Rating on Personal Factor item 'I would be happy for my friends and family to use this organisation's services' across Demographic Variables (Rating on a scale of 1-5)

Table 3 shows the demographic-wise rating of employees on a 5-item scale of 1 to 5 (where is 1-strongly disagree and 5-strongly agree) on the Personal Factors items-"I would be happy for my friends and family to use this organisation's services". Employees being happy while their friends and family use this organisation's services was one such factor

that measured 'Employees personal goals or team goals'. The extent to which employees are happy while their friends and family use this organisation's services determines whether employees have aligned their personal goals with organizational goals or not in the outsourcing industry.

The chi-square value (36.39) of marital status of the employees working in BPO's was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square (23.03) of job positions of the employees working in BPO's was not statistically significant, meaning, the difference between observed value and expected value was not significant. The p-value is not less than 0.05 hence, there is no evidence to suggest that the null hypothesis is not true. There is a difference in the employee's behaviour factor relating to the employees working in BPO sector with respect to the employees being happy while their friends and family use this organisation's services across different marital status and job positions of the employees. While the chi-square value (16.54) of employees' genders was found statistically significant, meaning the difference between observed and expected value was significant. The chi-square value (25.88) of employees' age-groups was found statistically significant, meaning the difference between observed and expected value was significant. The chi-square value (74.5) of employee's working experience was found statistically significant, meaning the difference between observed and expected value was significant. The p-value is less than 0.05 hence, there is evidence to suggest that the null hypothesis is true. There is no difference found with respect to the employees being happy while their friends and family use this organisation's services across different gender, age-group and working experience of the employees in BPO's. Table 4.2 (c) shows that the extent to which the employees feel happy for their friends and family to use this organisation's services was not only comparatively lower in comparison to the whole sample in terms of marital status and job position of the employees but was also as expected. However, according to employee's different gender, age-groups and working experiences, the extent to which the employees feel happy for their friends and family to use this organisation's services was comparatively lower in comparison to the entire sample selected and was not as expected.

4.2 (d) Employee's Growth Mindset

Variable	Options	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total	Chi-Square		
Gender	Male	9	10	70	100	72	261	18.37 ^a	Df=4	P=.032
	Female	0	5	21	54	9	89			
Total		9	15	91	154	81	350			
Age	18-21 year	0	0	6	4	0	10	25.08 ^a	Df=16	P=.071
	21-24 year	4	9	53	62	8	136			
	24-27 year	2	3	12	40	53	110			
	27-30 year	2	2	10	27	0	41			
	Above 30 year	1	1	10	21	20	53			
	Total	9	15	91	154	81	350			
Marital Status	Single	4	10	74	82	12	182	24.43 ^a	Df=8	P=.058
	Married	3	3	9	58	34	107			
	Unmarried	2	2	8	14	35	61			
Total		9	15	91	154	81	350	28.49 ^a	Df=28	P=.019
Working Experience	Less than 1	4	10	65	38	40	157	24.46 ^a	Df=24	P=.065
	2 year	0	1	12	30	5	48			
	3 year	2	1	4	43	9	59			
	4 year	0	2	9	10	6	27			
	5 year	2	1	0	13	0	16			
	6 year	1	0	0	5	0	6			
	Above 6 year	0	0	1	15	21	37			
Total		9	15	91	154	81	350			
Job Position	Team Leader	0	5	5	34	21	65	24.46 ^a	Df=24	P=.065
	Quality Analyst	2	4	1	7	0	14			
	Process Analyst	2	1	24	14	8	49			
	Coordinator	1	2	13	22	14	52			
	Administrator	3	3	22	17	8	53			
	Trainer	1	0	4	34	18	57			
	Others	0	0	22	26	12	60			
Total		9	15	91	154	81	350			

Table 4.
Rating on Personal Factor
item 'I put in extra effort
when I find it necessary'
across demographic
variables
(Rating on a scale of 1-5)

Table 4.2 (d) shows demographic-wise rating of employees on a 5-item scale of 1 to 5 (where 1-Strongly disagree and 5-Strongly agree) on the Personal Factor item- "I put in extra effort when I find it necessary". Employees putting in extra effort when they find it necessary was one such factor that measured 'Employee's growth mindset'. The degree to which employees put their extra efforts when they find it necessary whether sustaining and developing employees productivity is taken as an important HR strategic policy by the outsourcing companies or not.

The chi-square value (18.37) of gender of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (25.08) of age-groups of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (24.46) of job positions of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The p-value is not less than 0.05 hence, there is no evidence to suggest that the null hypothesis is not true. There is a difference in the personal factors relating to the employees working in the BPO sector. Employees put in extra effort when they find it necessary across gender, age-group and job-positions. While the chi-square value (23.16) of employee's marital status was found statistically significant meaning difference between observed and expected value was significant. The chi-square value (33.93) of employee's working experience was found statistically significant meaning the difference between observed and expected value was significant. The p-value is less than 0.05 hence, there is evidence to suggest that the null hypothesis is true. There is no difference in the personal factors relating to the employees working in the BPO industry. Employees put in extra effort when they find it necessary across different working experiences and marital status. Table 4.2 (d) reveals that the extent to which employees put their extra effort when they find it necessary was not only comparatively lower in comparison to the whole sample in terms of gender, age-group and job-positions but was also as expected. However, in terms of employee's marital status and according to their working-experiences, the extent to which employees put their extra efforts when they find it necessary was comparatively lower in comparison to the entire sample selected and was not as expected.

4.2 (e) Employees Taking Responsibility of Their Own Learning

Table 5.
Rating on Personal Factor item 'The chance to try my own methods of doing the job frequently makes suggestions to improve the work of my department' across demographic variables (Rating on a scale of 1-5)

Variable	Options	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Total	Chi-Square		
Gender	Male	8	7	44	172	30	261	16.49 ^a	Df=4	P=.188
	Female	0	6	15	57	11	89			
	Total	8	13	59	229	41	350			
Age	18-21 year	0	0	3	7	0	10	23.45 ^a	Df=16	P=.103
	21-24 year	4	5	14	92	21	136			
	24-27 year	0	1	33	71	5	110			
	27-30 year	0	4	7	28	2	41			
	Above 30 year	4	3	2	31	13	53			
	Total	8	13	59	229	41	350			
Marital Status	Single	4	10	33	117	18	182	33.42 ^a	Df=8	P=.069
	Married	4	2	8	76	17	107			
	Unmarried	0	1	18	36	6	61			
	Total	8	13	59	229	41	350			
Working Experience	Less than 1	4	5	27	109	12	157	21.33 ^a	Df=28	P=.075
	2 year	0	0	8	33	7	48			
	3 year	0	5	18	34	2	59			
	4 year	0	1	4	19	3	27			
	5 year	0	1	1	12	2	16			
	6 year	0	1	0	2	3	6			
	Above 6 year	4	0	1	20	12	37			
	Total	8	13	59	229	41	350			
Job Position	Team Leader	0	1	13	44	7	65	17.25 ^a	Df=24	P=.071
	Quality Analyst	0	3	1	10	0	14			
	Process Analyst	4	1	8	27	9	49			
	Coordinator	0	2	9	36	5	52			
	Administrator	4	0	3	38	8	53			
	Trainer	0	3	0	54	0	57			
	Others	0	3	25	20	12	60			
Total		8	13	59	229	41	350			

Table 4.2 (e) shows the demographic-wise rating of employees on a 5-item scale of 1 to 5 (where is 1-Strongly disagree and 5-Strongly agree) on the Personal Factor item-"The chance to try my own methods of doing the Job frequently makes suggestions to improve the work of my department". It was one such factor that measured 'Employees taking responsibility for their own learning' that determines whether employees' suggestion program policy is taken as an important HR strategic policy by the outsourcing companies or not.

The chi-square value (16.49) of gender of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (23.45) of age-groups of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (33.42) of marital status of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (21.33) of working experiences of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The chi-square value (17.25) of job positions of employees was not statistically significant, meaning, the difference between observed value and expected value was not significant. The p-value is not less than 0.05 hence, there is no evidence to suggest that the null hypothesis is not true. There is a difference in the personal factors relating to the employees working in the BPO sector in the chance to try employees' own methods of doing the job, frequently making suggestions to improve the work of their department across gender, age-group, marital status, working experiences and job positions. Table 4.2 (e) shows that the extent to which the chance to try employees own methods of doing the job frequently makes suggestions to improve the work of their department was not only comparatively lower in comparison to the whole sample in terms of gender, age-group, marital status, working-experiences and job-positions of the employees but was also as expected.

5. Summary of the Results

Here, summary of all items is presented as follows:

Items	Statements	Calculated value	Gender	Age-groups	Marital status	Working experience	Job positions
Item 1	I can communicate job frustration to the supervisor	Chi-Square value	43.85	23.16	33.93	18.16	24.43
		DOF	4	16	8	28	24
		P value calculated	.105	.001	.001	.079	.068
		Table value	9.49	26.30	15.51	41.34	36.42
		Result	Accepted	Rejected	Rejected	Accepted	Accepted
Item 2	At my job, am very resilient, mentally	Chi-Square value	18.22	19.63	30.84	18.52	25.16
		DOF	4	16	8	28	24
		P value calculated	.354	.031	.091	.083	.029
		Table value	9.49	26.30	15.51	41.34	36.42
		Result	Accepted	Rejected	Accepted	Accepted	Rejected
Item 3	I put in extra effort when I find it necessary	Chi-Square value	18.37	25.08	24.43	28.49	24.46
		DOF	4	16	8	28	24
		P value calculated	0.32	.071	.058	.019	.065
		Table value	9.49	26.30	15.51	41.34	36.42
		Result	Rejected	Accepted	Accepted	Rejected	Accepted
Item 4	I would be happy for my friends and family to use this organization's services	Chi-Square value	16.54	25.88	36.39	74.5	23.03
		DOF	4	16	8	28	24
		P value calculated	.002	.031	.561	.022	.082
		Table value	9.49	26.30	15.51	41.34	36.42
		Result	Rejected	Rejected	Accepted	Rejected	Accepted
Item 5	The chance to try my own methods of doing the job frequently makes suggestions to improve the work of my department.	Chi-Square value	16.49	23.45	33.42	21.33	17.25
		DOF	4	16	8	28	24
		P value calculated	.188	.103	.069	.075	.071
		Table value	9.49	26.30	15.51	41.34	36.42
		Result	Accepted	Accepted	Accepted	Accepted	Accepted

Table 6.

6. Discussion and Conclusion

In the event of improper outcomes with inadequate justifications, employees are perceived as an insignificant organizational member which in turn, frustrates the employees to which he or she blames the organization for being causally responsible for the unfortunate outcome (Folger, 1993; Folger, & Baron, 1996) as organizational justice determines differences or closeness between manager and employees (Nabatchi et al., 2007). Employee's poor management in dealing with different workplace situations is caused due to the lack of communication with their superiors (Kular et al, 2008; Dia & Suzi, 2019), therefore in the case where the communication is from one-side i.e. from manager to subordinate in terms of just receiving the instructions, the problem of blaming the peer's employees is common. To be constructive in boosting the engagement levels of the employees, the organizational policies should ensures a trustworthy environment where the favourable working conditions are provided to the employees by raising their involvement, and minimizing the level of job insecurities (Alshaabani, 2022).

The employees perform better when they are flexible enough to be responsive with the changing demands and experiences (Tugade & Fredrickson, 2004) hence, they are better able to achieve high performances. Resilience has a strong impact on employee's satisfaction and therefore helps them to deal effectively with their emotions while facing adversity (Bonanno, Papa, & O'Neill, 2001; Krush et al., 2013). To sustain the high level of Employee engagement, the human resource practices should include the aspects of work time and workspace flexibility, professional growth and development, social and professional relationships, and personal professional performance that would successfully turn out to be the crucial outcomes of sustainable HRM (Davidescu, 2020).

Organization should practices the strategy of goal alignment at the individual level with the motive to link the common interest of employee and organization together in management systems in order to increase organisational performance (Kaplan & Norton, 1992). Goal setting theory is based on the premise that individuals should be motivated in the direction to achieve what is being expected of them and links the organizational task specific strategy and role of self-efficiency (Locke & Latham, 2002; Bozkurt, 2017). Moreover, the high-quality relationships between employees and superior is needed for high productivity, good health, and work-related well-being outcomes (Roczniawska, 2021). The Personal factors like psychological factors also helps in meeting the actual customer needs and satisfaction (Crosta, 2021).

From the perspective of employee growth mindset, failure shows the employees how little capability he/she possesses. The employees thus respond to these setbacks by staying motivated and engaged with their rigorous efforts and inputs (Tabernero & Wood, 1999; Blackwell et al., 2007). The culture of innovation and employee empowerment also significantly impacts the performances, attitudes of employees (Keating et al., 2015; Tuffaha, 2020) and by engaging with the innovation outputs of organizations thus helps in sustaining the competitive advantage (Hou et al., 2022).

Employees self-learning is closely associated with the aspects of autonomy, motivation etc. which enhances the employees inability to self-review their own learning (Masanori, 2017). Therefore, the learning organizations at the individual level generally build the employees who are more willing to learn on their own to achieve organizational goals (Koehorst, 2021). The focus on improving the employee skills on an individual level influences how employees handles the novel situations where the knowledge and skills of employees are seen as a measure for economic potential (Cheng, 2022).

The results achieved through this investigation showed that employees' personal or individual factors are highly influenced by demographic factors like gender, age-group, marital status, working experience and job position. Overall the significant relationship between employee's personal factors and their demographics variables were found. The variations are identified according to the varied demographics of the employees. At the individual level, the variations among responses of employees with respect to their personal factors was highlighted in this study. The employees generally struggle with their superiors

when they find it difficult to take on the responsibility of their work responsibilities. The employees are generally seems to be mentally resilient at their workplace, which gives them strength to overcome stress and negative emotions. The employee's growth and fixed mindset enhances the effectiveness of the organization. Engagement of employees is associated with the intellectuals, perceptions and emotions around being valued and involved (Konrad, 2006) that enhances the discretionary efforts which generates the outstanding performance of employees. The employees generally are dependent on self-regulated learning when it comes to accomplish certain tasks and challenges.

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Finding out those factors which Promote Emotional Brandings in Relation to Textile Outlets: Multiple Group Path Analysis Approach

Finding out those factors which Promote Emotional Brandings in Relation to Textile Outlets

53

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Abstract

Purpose: The article tries to finding out those factors which promote emotional brandings in relation to textile outlets. One objective of this study is reached through proper methodology.

Design/Methodology/Approach: Sample size was 200 in all obtained through convenience sampling technique in Coimbatore city. Researcher designed questionnaire is with 5 point scale in the continuum of agreeing. Reliability of this tool is 0.82 and 0.89. Multiple group path analysis was used for data analysis.

Implication: It is concluded that this article has traced the possible relationships and the range of influences of the factors which promote emotional branding in textile outlets through the path analysis. With the theuristic diagram attempt was made to beacon the facts involved with emotional branding in textile outlets.

Keywords: Emotional branding; convenience sampling technique; multiple group path analysis and Coimbatore city.

Paper Type: Research Paper

1. Introduction

Branding is a progressive concept. Many researchers had launched contemporary concepts related to concept of branding. Emotion is more linked towards branding rather than other psychological mental processes. Establishment of a brand and impressing the customers and the consumers are proportional with the time. Well established brands gained success only with constant assurances of quality and quality which all the consumers anticipate. A specific brand is associated with the emotional sector of the customers. Several predictors are exposed which influence the emotional branding. Doyle, (1998) had stated that the branding are at the hearts of marketing business strategy. Unification of tangibles and the intangible attributes are involved in branding.

Expectations, trust, reputations, identification, guarantee, mark of integrity, etc. are linked and associated with as a whole in a brand; and the integrated processes is branding. Brands create unique relevance and difference. Most distinctive skill of professional marketers depends upon their ability to create, maintain, protect, reinforce and enhance brands (Kothler, et al. 1999). Target of competitors are well understood and identified only through brands. Actually 'battle within brands' becomes a perpetual unavoidable trend in business and its managements (Aaker, 1991). Companies adopt several strategies to see their own brands as a dominant one in the market. Giving an emotional appeal to a brand is to retain a peak brand position with almost no equally better brands.

Brands should fulfill the consumer's emotional expectations. Researchers are oriented towards the enhancement of brands so that it may fulfill the emotional expectations. Several deep dens are there in developing emotional brandings which are to be torched and well illuminated. Branding is a tool to combat intelligently within the global marketing. Brand values are nearly about one third of the World's wealth. Biggest companies are well protected by these attentions towards branding. Davis (2005), had revealed the brands are gaining the power. Changing societies make branding management very difficult. Branding



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characterization are promoted by the equalization of product quality, saturated markets, brand inflation and information overload (BBDO Consulting/Gm BH 2004).

"A brand is not a product. It is the products essence, its meaning and its direction and it defines its identity in time and space" Kapferer, (1992).

"Branding of service is different from branded products".

Branding can help brand strategists by enriching their understanding of peoples' perception of and attitude towards the brand Aaker (1996).

Emotion is a physical and mental condition and constitutes several diversified components like subjective, neurological, cognition and communication components (Ulich, 1989).

Emotion is a bodily patterned reaction of either destruction, reproduction, incorporation, orientation or a combination of reaction induced by a stimulus (Putchik, 1991).

Emotion is an outward sprout of reaction in response to a stimulus; here the stimulus may be a particular brand of product. Emotions may become well integrated and it becomes stable (Langle, 1993).

When a brand is a stimulus, it provokes emotions which may be positive or negative; if it is positive consumption becomes frequent, if it is negative the consumer gets repelled out and stagnation of the product is witnessed. If emotions are responses, all the stimuli of all sense organs are the initiators.

Emotions are triggered by fantasies, imaginations, feelings and pleasure in consumption, forms a powerful and ongoing motivation for the consumers to want to experience the pleasurable feeling again and again, thus consumers tend be loyal to a specific brand.

Emotion is a physical and mental condition and it constitutes several diversified components like subjective, neurological, cognition and communication components (Ulich, 1989). Emotion is a bodily pattern of reaction of either destruction, reproduction, incorporation, orientation or a combination of these reactions induced by a stimulus (Putchik, 1991). Emotion is an outward sprout of reaction in response to a stimulus; here the stimulus may be an exposed product for sale. Emotions become well integrated and it becomes stable; before integration it is not stable (Langle, 1993). When a brand is a stimulus, it provokes emotion which may be positive or negative; if it is positive consumption becomes frequent, if it is not so the consumers get repelled out and stagnation of the product is witnessed. If emotions are responses, all the stimuli of all sense organs are the initiators. With these ideas about the concept of emotion, the article shifts to understand the applied concept of 'Emotional Branding'.

The processes of emotional branding has underlying concept based on four important factors namely i) relationship, ii) sensorial experiences, iii) imagination and iv) vision.

A brand is a multi dimensional construct whereby managers augment products or services with values and facilitates the process by which consumers confidently recognize and appreciate those values (De Chernatony and Riley, 1998).

Emotional branding is a series of processes to position their products in the minds of the consumers. This is pre occupying process into the mindset of the consumers, by some processes and assurances through the product of the specific brand. The emotional brandings prevents or post pone the consumption of an alternate brand other than the emotional branded product. A branded product is actually linked with the emotion and faith of the consumer. Consumer and a specific brand are linked the emotion of a consumer.

Just a few decades past, brand was aimed to create awareness about a product. Now several dimensions of emotions are conjugated with brands to achieve the marketing share. Only by gaining the confidence of the consumer a brand becomes an emotional brand. The communication between the consumer and the product should be mental rather than physical. Through emotional branding long lasting market share is confirmed which is actually a credit to the producer. Brand should be inspirational and lead to a proud feeling in consumers' minds. Brand instead of being an identity it should be made a constituent of a personality. When a brand creates better feelings and aspirations it becomes a strong brand to bring out inspirations, a specific brand becomes socially responsible. Emotional branding emerged in the late 1990s and it now had gained momentum to get recognized in the global market;

consumers consume them; after getting satisfied they give a position for that specific brand in their mind (Smith, 1999). "A brand bridges the products and the consumers (Travis, 2000).

2. Review of Literature

(Bartikowski, et al. 2010) suggested that quality perceptions lead to enlarged earnings due to best prices and in the long run, to effective business development, linking both market growth and shop. Therefore, we proposed that;

H1. Quality has a positive effect on shop in Coimbatore city.

A natural, which concerns a specific product and price of the product, is the key measure for a brand to be judged shops' infrastructure (Baek, 2010). Therefore, we proposed that;

H2. Product has a positive effect on shop in Coimbatore city.

H3. Price has a positive effect on shop in Coimbatore city.

Formation of customer emotional branding depends upon the shop infrastructure, brand, brand quality and brand connection (Grisaffe and Nguyen, 2011). Therefore, we proposed that;

H4. Shop has a positive effect on emotional branding in Coimbatore city.

A Framework of the Study

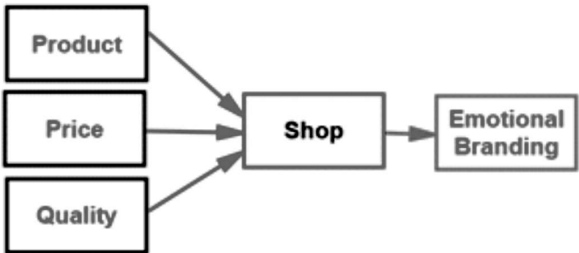


Figure 1:
Framework

This study adopts only three common independent variables namely quality, product and price. It was planned to assure how these factors relate within themselves and influence the shop and the emotional branding through the path analysis.

B Research Gap

After a deep probe into the past journals and books it was noted that several studies were oriented toward the service industries. Having felt the vacuum in the emotional brandings of products, it was planned to orient towards the products. After a session of continuous study it was noted that the studies related to textile products were very few. Finally the area 'Textile outlets' was selected. Growing number of multi cultural races in the target markets and the impact of feminism in the current generation are profoundly affecting consumer brand expectations; hence it was felt that gender differences may lead to some useful information toward the consumption of the textiles. By using three common independent factors namely price, product and quality, the relationship and the influences over the male and female was about to be studied.

After frequent consultations with the eminent guides, phrasing, de phrasing and rephrasing the research title was framed. Based on the exploratory research suggested by the seniors and the guide an approach of Path Analysis was adopted.

C Statement of the Problem

Based on the deep studies the research title "Finding out those factors which promote emotional brandings in relation to textile outlets: a path analysis approach" was framed. Main focus of this study is Emotional Branding which is the trend in the contemporary researches in marketing researches. Even though several factors affect the emotional branding and its executions, this study adopts only three common independent variables namely quality, product and price. It was planned to assure how these factors relate within themselves

and influence the shop and the emotional branding through the path analysis. Relationship and the influences of the independent factors over the male and the female are also going to be explored through the path analysis. Contemporary researches exposed the fact that the impact of women participation and the textile consumptions are in the ascending mode; hence there is a dire need of finding the gender difference in relation to the textile consumption through the textile outlets. Empowerment of the women had lead them to tackle varieties of job; as per the old saying 'dress to the occasion' women try to face several occupational challenges the resort to several types of dresses which in turn needs varieties of fabrics which can be accessed only from the popular textile outlets. It can be stated that this study is a timely study in relation to the textile outlets.

3.Research Methodology

A Research Design

To obtain better answer to the research question, a proper research design is to be framed (Cooper & Schindler 2001; Davis & Cosenza 1988). Based on the framed hypotheses of the research inferential statistics was adopted. Descriptive research design was adopted in this study.

B Objective of the study

Finding out those factors which Promote Emotional Brandings in Relation to Textile Outlets.

C Hypotheses of the study

- There is no influence of product on shop with respect to gender of the customers.
- There is no influence of price on shop with respect to gender of the customers.
- There is no influence of quality on shop with respect to gender of the customers.
- There is no influence of shop on emotional branding with respect to gender of the customers.

D Scope of the Study

- Scope of the study is as follows
- The study is centered at Coimbatore city.
- Study is related only with emotional brandings in relation to textile outlets.

E Data Collection

Under this technique convenience sampling technique was opted. Sample size was 200. The sampling area was Coimbatore city.

F Reliability

For all the items in the self questionnaire design, the alpha values ranged from 0.82 and 0.89. This indicates high reliability of the items in the questionnaire. With these results, consistency, dependability and adoptability are confirmed.

G Period of the study

The study was carried from the Coimbatore city between the periods of Jun 2016 to Aug 2016.

H Tool for data analysis

Path analysis was adopted for primary data analysis. Influence of independent variables on dependent variable with respect to mediator variables.

4. Analysis and Discussion

After framing the hypothetical model, statistical analyses are performed to find out the model fit. When a hypothetical model is treated with correlation and regression, it leaves out some reliable values; if the values so obtained prove to be significant it is considered to be a fit model. Actually model fit is based on several fit indices; all the fit indices can be discussed in the ensuing lines.

Table1.
Model fit Indication

X ²	P	GFI	AGFI	CFI	NFI	RMSEA
21.054	0.002	0.988	0.942	0.991	0.987	0.060

Source: primary data

Table 1 shows the model summary. While evaluating the model, emphasis is to be given to the chi-square value and the p- value. The p-value of the corresponding chi-square should be greater than 0.05. Then only the model fits to the data collected for the analysis. It does not mean it is not totally fit. Secondly other indices are to be considered which are expected to be very near to 'one'. In this path analysis GFI is .988; AGFI is .942; CFI is .991 and NFI is .987 all these values are very near to 'one'; hence it can be interpreted that the model is fit with the theoretical model and the data collected and related to it. Thirdly RMSEA should be below .08; in this study it is .06 only; hence it proves that the model is fit.

The technique of the path analysis is based on series of multiple regression analysis with the assumption of casual relationship between the independent and the dependent variables. In the path analysis γ coefficient indicates the direct effect of independent variables over the dependent variables. Path analysis adopts heuristic use of visual diagrams. Multiple group path analysis is adopted to find out the significant differences between the responses of two or more group using the same model fit.

Path analysis diagram related to male



Figure 2:
Emotional Branding -
Gender - Male

DV		IV	Estimate	S.E.	C.R.	B	p
Shop	<---	Product	0.197	0.071	2.761	0.126	0.006
Shop	<---	Price	0.944	0.069	13.637	0.547	0.001
Shop	<---	Quality	0.177	0.073	2.427	0.106	0.015
Emotional Branding	<---	Shop	0.303	0.020	15.086	0.539	0.001

Table 2.
Regression Weights of
Emotional Branding of
Male Customers

Source: primary data

IV		IV	Estimate	S.E.	C.R.	r	p
Price	<-->	Quality	11.523	.967	11.919	.586	0.001
Price	<-->	Product	13.313	1.056	12.604	0.633	0.001
Quality	<-->	product	15.153	1.122	13.507	0.699	0.001

Table 3.
Covariance Emotional
Branding of Male
Customers

Source: primary data

From the path analysis diagram related to male, one can note some readings about the relationships and the influences of them over the dependent variables. It is established that the relationship between quality and product is 0.70. The correlation value for product and price is 0.63 and that of price and quality seems to be 0.59. All these readings show the relationships among the independent variables; all these readings indicate the average relationships among these and are positively correlated.

The influence of price over the shop remains as 0.55 and is the highest of all the influences; product influence is 0.13 and the quality influence over the shop is 0.11; hence it can be inferred that the price is the factor which contribute to the shop thereby it is well understood that the emotional branding is well understood that the emotional branding is promoted by

the price and less influenced by the price and less influenced by product and quality. The influence of shop over emotional branding is 0.54 and is positive as far as male are concerned. R2 for the shop is 0.50 and that of emotional branding is 0.29; it can be stated that the consolidated influences of the product, price and quality over the shop specifically renders 50 per cent of influencing effect over the emotional branding. Baek, (2010), Grisaffe and Nguyen, (2011) and Bartikowski, et al. (2010) they also found that influence of the product, price, quality and shop on emotional branding.

The regression weights of the male responses are shown in the table 2. The table shows the effects of independent variables product, price and quality toward the emotional branding through the shop which is the mediating dependent variable.

The independent variable product shows the estimate as 0.197; SE as 0.071; CR as 2.761 towards shop which is the mediating dependent variable. The B- value is 0.126 and its corresponding p- value is .006 which means that the independent variable product influence the emotional branding through the mediator dependent variable shop to 1.26 per cent. The product shows significant influence over the mediating dependent variable shop. Baek, (2010) also found that there is influence of product on shop.

The independent variable price shows the estimate as 0.944; SE as 0.069; CR as 13.637 towards shop which is the mediating dependent variable. The B- value is 0.547 and its corresponding p- value is 0.000 which means that the independent variable price influence the emotional branding through the mediator dependent variable shop to 5.47 per cent. The price shows significant influence over the mediating dependent variable shop. Baek, (2010) also found that there is influence of price on shop.

The independent variable quality shows the estimate as 0.177; SE as 0.073; CR as 2.427 towards shop which is the mediating dependent variable. The B- value is 0.106 and its corresponding p- value is 0.015 which means that the independent variable quality influence the emotional branding through the mediator dependent variable shop to 1.06 per cent. The quality shows significant influence over the mediating dependent variable shop. Bartikowski, et al. (2010) also found that there is influence of quality on shop.

The mediating dependent variable shop shows the estimate as 0.303; SE as 0.020; CR as 15.086 towards shop which is the mediating dependent variable. The B- value is .539 and its corresponding p- value is 0.000 which means that the mediator dependent variable shop, influence the emotional branding through the mediator dependent variable shop to 5.39 per cent. The shop shows significant influence over the main dependent variable emotional branding.

The following table jot out the covariance of the responses of the male. The covariance of male among the independent variables of the study shows the following details. The independent variables namely product, price and quality have their own interrelationships. The manifestations of their interrelationships are exposed in the table as follows.

The relationship of price and quality shows the estimate as 11.523 with the SE of 0.967, the critical ratio is 11.919 and the coefficient of correlation is 0.586 and is positive. Since the p-value is 0.000 it is significant; it can be interpreted that the price and quality are significantly related with each other.

The relationship of price and product shows the estimate as 13.313 with the SE of 1.056, the critical ratio is 12.604 and the coefficient of correlation is 0.633 and is positive. Since the p-value is 0.000 it is significant; it can be interpreted that the price and product are significantly related with each other.

The relationship of quality and product shows the estimate as 15.153 with the SE of 1.122, the critical ratio is 13.507 and the coefficient of correlation is .699 and is positive. Since the p-value is 0.000 it is significant; it can be interpreted that the price and quality are significantly related with each other.

With the readings it can be understood that all the three dependent variables namely price, product and quality are correlated positively and significantly.

Path analysis diagram related to female

DV		IV	Estimate	S.E.	C.R.	B	p
Shop	<---	Product	0.642	0.141	4.556	0.418	0.001
Shop	<---	Price	0.776	0.124	6.260	0.517	0.001
Shop	<---	Quality	-0.270	0.158	-1.709	-0.164	0.087
Emotional Branding	<---	Shop	0.265	0.037	7.100	0.511	0.001

Source: primary data

Finding out those factors which Promote Emotional Brandings in Relation to Textile Outlets

59

Table 4.

Regression Weights of Emotional Branding of Female Customers



Figure 3:

Emotional Branding - Gender - Female

IV		IV	Estimate	S.E.	C.R.	r	p
Price	<-->	Quality	12.315	1.816	6.783	0.690	0.001
Price	<-->	Product	12.504	1.915	6.531	0.653	0.001
Quality	<-->	product	13.247	1.835	7.221	0.759	0.001

Source: primary data

Table 5.

Covariance of Emotional Branding of Female Customers

As far as the responses of the female are concerned, the model exposes the relationship between the independent variables and the influence over the mediator dependent variable shop and through that to the main dependent variable emotional branding. From the path analysis diagram related to female, one can note some readings about the relationships and the influences of them over the dependent variables. It is established that the relationship between quality and product is 0.76. The correlation value for product and price is 0.65 and that of price and quality seems to be 0.69. All these readings show the relationships among the independent variables; all these readings indicate the average relationships among these and are positively correlated.

The influence of price over the shop remains as 0.52 and is the highest of all the influences; product influence is 0.42 and the quality influence over the shop is -0.16; hence it can be inferred that the price is the factor which contribute to the shop thereby it is well understood that the emotional branding is well understood that the emotional branding is promoted by the price and less influenced by the price and less influenced by product and quality. The influence of shop over emotional branding is 0.51 and is positive as far as female are concerned. R2 for the shop is 0.53 and that of emotional branding is 0.26; it can be stated that the consolidated influences of the product, price and quality over the shop specifically renders 51 per cent of influencing effect over the emotional branding.

The regression weights of the female responses are shown in the table 4. The table shows the effects of independent variables product, price and quality toward the emotional branding through the shop which is the mediating dependent variable.

The independent variable product shows the estimate as 0.642; SE as 0.141; CR as 4.556 towards shop which is the mediating dependent variable. The B- value is 0.418 and its corresponding p- value is 0.000 which means that the independent variable product influence the emotional branding through the mediator dependent variable shop to 4.18 per cent. The product shows significant influence over the mediating dependent variable shop. Baek,

(2010) also found that there is influence of product on shop.

The independent variable price shows the estimate as 0.776; SE as 0.124; CR as 6.260 towards shop which is the mediating dependent variable. The B- value is 0.517 and its corresponding p- value is 0.000 which means that the independent variable price influence the emotional branding through the mediator dependent variable shop to 5.17 per cent. The price shows significant influence over the mediating dependent variable shop. Baek, (2010) also found that there is influence of price on shop.

The independent variable quality shows the estimate as -0.270; SE as 0.158; CR as -1.709 towards shop which is the mediating dependent variable. The B- value is -0.164 and its corresponding p- value is 0.087 which means that the independent variable quality negatively influence the emotional branding through the mediator dependent variable shop to -1.06 per cent. The influence by quality over the mediating dependent variable shop is not significant. But Bartikowski, et al. (2010) found that there is influence of quality on shop.

The mediating dependent variable shop product shows the estimate as 0.265; SE as 0.037; CR as 7.100 towards shop which is the mediating dependent variable. The B- value is 0.539 and its corresponding p- value is 0.000 which means that the mediator dependent variable shop, influence the emotional branding through the mediator dependent variable shop to 5.39 per cent. The shop shows significant influence over the main dependent variable emotional branding.

The following table jot out the covariance of the responses of the female. The covariance of male among the independent variables of the study shows the following details. The independent variables namely product, price and quality have their own interrelationships. The manifestations of their interrelationships are exposed in the table as follows.

The relationship of price and quality shows the estimate as 12.315 with the SE of 1.816, the critical ratio is 6.783 and the coefficient of correlation is .690 and is positive. Since the p-value is 0.000 it is significant; it can be interpreted that the price and quality are significantly related with each other.

The relationship of price and product shows the estimate as 12.504 with the SE of 1.915, the critical ratio is 6.531 and the coefficient of correlation is 0.653 and is positive. Since the p-value is 0.000 it is significant; it can be interpreted that the price and product are significantly related with each other.

The relationship of quality and product shows the estimate as 13.247 with the SE of 1.835, the critical ratio is 7.221 and the coefficient of correlation is 0.759 and is positive. Since the p-value is 0.000 it is significant; it can be interpreted that the price and quality are significantly related with each other.

With the readings it can be understood that all the three dependent variables namely price, product and quality are correlated positively and significantly as with the male.

A Discussion

Based on the multiple group path analysis it can be noted that the relationships between quality and product seems to be higher with the responses of male and female; even though it is so the influence they show towards the shop is low. Among the three independent variables price exerts higher influence towards the shop in both male and female; if so it can be taken for granted that both the gender impart more importance to the price rather than the quality and the product. The idea that price is the variable is influencing the emotional branding through the shop as a mediating dependent variable, will lead the producers to produce products which are more economical and reachable to the two gender consumers. Actually shop is only a mediator since this variable merely conducts the influence over the emotional branding; since the influence received by the shop and the influence it shows towards the emotional branding are nearly equal in both male and female. Baek, (2010), Grisaffe and Nguyen, (2011) and Bartikowski, et al. (2010) they also found that influence of the product, price, quality and shop on emotional branding.

Quality is the only dependent variable which shows the negative influence towards the shop; it can be understood that the total influences received by the shop is actually pulled down by the Quality beyond from the average relationships with the other two independent variables. As far as the regression weights of female responses are concerned the same

variable quality proves that there is no significant negative influence is rendered by the quality as an independent variable over the shop. Since the negative influence is not significant, it need not be given much importance.

Summated influence received by the emotional branding is only 26 per cent with female and 29 per cent for male, it can be stated that the etiological contributions of those variables are within 26-29 per cent the remaining per cent of about 74-71 per cent may be related to exogenous variables; if more variables are considered, the influences received by the emotional branding may get a hike.

Findings

- There are differences in the relationships between the independent variables as perceived by male and female.
- Female responses show that the influence by quality towards shop is negative while it is positive in case of male responses.
- Shop is much influenced by the independent variables; this is felt by the female respondents to show gender differences.
- Similarly the summated influence received by the emotional branding is greater with male than with female.
- Through the path analysis it can be noted that the concept of emotional branding differs with male and female in total.

A Suggestion

- Since the influence is positive with male and negative with the female importance to be given to the quality of the product which are sold out at the textile outlets.
- Emotional branding is 26 per cent for female and it is 29 per cent for male hence more attention can be given importance to the products and quality to gain emotional branding effect from female.
- Since the emotional branding difference between male and female is 26-29 per cent, some other variables can also be added to gain more emotional branding effect.

B Managerial implications

To some extent this study has disclosed the differences between male and female responses towards the emotional branding. The managers of these outlets are requested to observe objectively the response behavior of male and female while they come for the purchase in their outlets; through these objective observations they can enhance the effect of emotional branding related to their organizations.

C Scope for further studies

Using this model, a specific shop with specific brand can be studied with a larger sample size.

Advancement in research can be performed by adopting emotional branding and Brand positioning.

D Limitations

Textile is the totality of innumerable attributes. In this study only product, price and quality alone are considered.

This study can't be generalized since the study is localized only in Coimbatore city with only the sample strength of 200 customers.

E Conclusion

This article has traced the possible relationships and the range of influences of the factors which promote emotional branding in textile outlets through the path analysis. With the heuristic diagram attempt was made to beacon the facts involved with emotional branding in textile outlets.

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Digital Fatigue among Students in Current Covid-19 Pandemic: A Study of Higher Education

Digital Fatigue among
Students in Current
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63

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Abstract

Purpose: The present study attempted to measure the level of digital fatigue among the students from University of Jammu (J&K). Study further examines the impact of multiple online platforms used by faculty and technology overload on digital fatigue among students in selected university.

Design/Methodology/Approach: A survey approach was employed to collect data from a total of 400 students from selected university. Data was examined statistically by using structural educational modelling (SEM).

Findings: Results indicated that multiple online platforms and technology overload have a significant positive impact on student's digital fatigue.

Practical Implications: Study highlights that special focus and effort are required to cope up with the digital fatigue among the students. The students should be provided with the proper support to handle the technology, single online platform should be encouraged for online learning to enhance the student well being.

Originality/Value: This research to the small but increasing body of knowledge on a topic that is important to both academics and practitioners. The current study looks at the many reasons of digital fatigue caused by an overreliance on technology in the online education system.

Keywords: Digital Fatigue, Multiple Online Platforms, Technology Overload, Higher Education

Paper Type: Research paper

1. Introduction

The entire globe has been shaken by outburst of fatal disease called Covid-19 caused by a Corona Virus (Dhawan, 2020). The education industry which goes beyond boundaries has been affected adversely during pandemic (Amponsah et al., 2022). The whole world has faced unusual learning conditions in the context of the ongoing international health crisis owing to COVID-19. This leads to the closure of educational institutions forcing stakeholders, faculty and institutional authorities to rethink about education as well as examining viable alternatives to guarantee successful learning (Gopal et al., 2021). This impulsive shut down of educational institutions round the globe has converted the face-to-face mode of instruction to an online mode (Asgari et al., 2021). Thus, digital technology acts as a unique mode of learning and dissemination of information (Yan, 2020). But unfortunately, educational institutions have been facing various challenges in this online mode of education (Dhawan, 2020). Teachers and students all around the world did their hardest to shift education online virtually overnight after being exposed to this new reality in various ways. Everyone got involved in the transfer, mostly unprepared for such a situation but enthusiastically and diligently. However, in this complex time, several harmful effects of technology overuse have been observed (Skulmowski and Standl, 2021). Excessive technology use has increased individual's contact with screen for a longer period of time which has become a serious issue (Pandya and Lodha, 2021). After months of screen usage, a new condition known as digital fatigue arose among the users. This ailment developed as a result of over use of digital technologies in the learning process, resulting in a sense of saturation that can lead



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to burnout. The sudden shift from personal contact to internet based education system has left teachers and students attempting to change. Experts have perceived digital fatigue as an unsettling condition with huge physical and mental effects on both instructors and students. One more reason for digital fatigue could be the utilization of numerous online platforms like Zoom, Google Meet and so on by certain instructors. In addition, in the absence of traditional face-to-face teaching and interaction, computer-assisted learning is the closest alternative to offline teaching (Khan et al., 2020). Excessive addiction and use of technology leads to student's digital fatigue. Though many research studies have been done to explore the concepts like techno stress, zoom fatigue, internet fatigue (Fauville et al., 2021; Wiederhold, 2020; Dhir et al., 2018) but concept of digital fatigue is still unexplored. So, the present study tries to explore the concept of digital fatigue and various factors which cause digital fatigue among the students. The first objective was to determine whether the use of multiple online platforms by faculty would exert a significant impact on student's digital fatigue. The second was to examine the impact of technology overload on student's digital fatigue. The third was to check the level of digital fatigue among students in selected university. Finally, to provide information that could help institutions to frame effective strategies for the well being of student community in the current pandemic situation.

2. Literature and Hypotheses Development

2.1 Multiple Online Platforms and Digital Fatigue

According to Abuhassna and Yahaya (2018), contemporary educational technologies are critical in offering a comprehensive online learning experience that is comparable to a face-to-face class despite the students' physical isolation from their professor and other students. Online learning platforms lend itself to a less hierarchical educational technique, satisfying the learning needs of individuals who do not approach new material in a linear or methodical manner (Abuhassna et al., 2020). Online learning platforms are also the best options for self-directed students (Abuhassna et al., 2020; Abuhassna and Yahaya, 2018). Benta et al. (2014) discussed how they used e-learning platforms to supplement face-to-face training in the academic sector. They discovered that e-learning platforms result in a positive teaching/learning experience. The relevance of employing e-learning platforms in higher education was highlighted in the study. Moreover, the use of online teaching platforms, like Zoom, Google meet etc, become popular in 2020, (Wiederhold, 2020). Though online teaching platforms constitute closest substitute to offline teaching (Bailenson, 2021; Supiano, 2020) but education through multiple online platforms bring anxiety among the students (Sundarasan et al., 2020). Further, the continuous use of online platforms the whole day causes the feelings of exhaustion among the students (Bailenson, 2021; Supiano, 2020; Wiederhold, 2020). Moreover, the complexities arise due to technical incompetence to handle the multiple online platforms and their previous experience for using software (Abuhassna et al., 2020). However, not only the faculty but students reported that use of multiple platforms used by faculty causes feeling of exhaustion (Nicandro, 2020; Quintana, 2020). So, on the basis of above literature below hypothesis has been developed.

H1: Use of multiple online platforms significantly leads to digital fatigue among students.

2.2 Technology Overload and Digital Fatigue

According to Grandhi, Jones, and Hiltz (2005) technology overload means the physical as well as psychological burden caused because of the excessive use of several complex gadgets. Numerous research studies put forward that this overload crop up when the skills needed to handle the information and communication technology (ICT) beat the capability of the actual user in the organization which means the technical demands go beyond the competence of user to handle them (Tarafdar et al., 2010, 2015; Galluch et al., 2015; Fischer and Riedl, 2017). Thus, it can be explained as a situation wherever ICT compel the users to work more hastily and for stretched hours (Tarafdar et al., 2007). Salanova, Llorens, and Cifre (2013) argued that technology overload is a cynical situation rooted by aggressive use of ICT which leads to mental fatigue, anxiety and cynicism. Further, it is observed that if people

use computer technology for learning or for some other purpose, they may feel discomfort, anxiety and stress (Wang, Shu, and Tu, 2008). Additionally, this excessive use of technology can cause dejection, fatigue and physical health, (Okonoda et al., 2017). Thus, the people possibly will show decline in efficiency, frustration, tiredness, and unease (Marchiori, Mainardes, and Rodrigues, 2019). In that case the users start feeling exhausted and start detaching themselves from their work and somehow they show inexpressive approach toward technology (Bondanini et al., 2020). Students' capacity to organize how they study and how much time they spend on studying can occasionally lead to a loss of motivation, and a lack of physical connection and presence of colleagues can make students feel alienated (Dhull and Sakshi, 2017). Disadvantages of E-learning can also be demonstrated in terms of physical health. Online learners and teachers may suffer from vision or back issues as a result of spending so much time seated and in front of a screen, and their outdoor exercise may be curtailed (Nazarlou, 2013). Furthermore, a number of studies have discovered a link between prolonged computer use and physical exhaustion manifested as musculoskeletal discomfort such as neck, shoulder, or hand and arm pain (Bachleda and Darhiri, 2018). So, on the basis of above literature the researcher developed the second hypothesis of the study as follow:

H2: Technology overload significantly leads to digital fatigue among students.

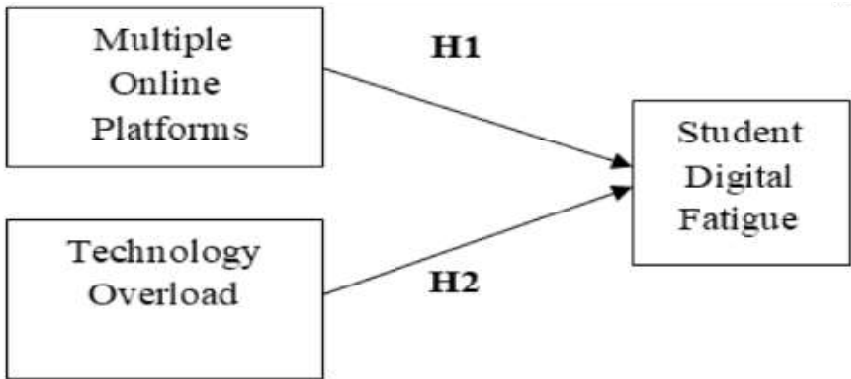


Figure 1:
Purposed Research Model

Source: Author's Own on the Basis of Literature Review

3. Research Methodology

3.1 Instrument Measurement

The questionnaire comprises of two parts; part one comprises of demographic data like age, gender etc., of the students. It was followed by another part which is online multiple platforms, technology overload and digital fatigue scales. The detail description of scales is presented in Table 1.

Construct	No. of Items	Scales
Multiple Online Platforms	6	Song (2010); Abuhassna et al. (2020); Coman, 2020
Technology Overload	5	Tarafdar et al., (2007); Choi and Lim (2016)
Student Digital Fatigue	7	Michielsen (2003); Benedetto et al. (2013); Chalder et al. (1993); Bachleda and Darhiri (2018)

Table 1.
Description of Scales Used

3.2 Sample Size, Sampling Technique and Data Collection

The sample size of study consists of 400 students from University of Jammu. The same sample size has been used in the study of Kaya (2020). In addition to this, a sample size above 300 was considered appropriate, which also allowed analysis by structural equation modeling (SEM) (Hair et al., 2006). Data was collected through online surveys with the help of Google Forms (Kaya, 2020). Due to Covid 19 restrictions and little personal access to

respondents, researchers have used online surveys. Similair method has been used by abundant studies conducted during the pandemic situation (Akuratiya and Meddage, 2020; Baczek et al., 2021). Faculty members from above mentioned universities were contacted and requested to send the online questionnaire in their respective online students groups. Participants answered questions on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree). After checking these responses, 77 responses had been eliminated due to incomplete data resulting into 323 valid responses with response rate of 80.75%.

4. Results

4.1 Demographics and Descriptive Statistics

About 63% of the students were males; most of the students (i.e. 54%) were in the 20-25 age group. About 41% of them were second semester students; 31% the fourth semester students; 18% the third semester students; and rest were (10%) the first semester students. To uncover the average perception of the students, means and standard deviations were computed. Table 2, illustrated that all the articles obtained an average score above the mid-scale point of 3. Out of all the factors, students ranked 'Technology Overload' (M = 3.37) the highest, subsequently, 'Online Platforms' (M = 3.76) and 'Student Digital Fatigue' (M = 3.46) obtained the least score. Table 2, displayed the mean values of all the measurements.

4.2 Purification of Scale

In present study, principal component analysis technique was applied for extraction and varimax was used as the rotation method. The KMO value came out to be 0.883 which is greater than 0.7 as desirable. Factors with Eigen value >1 were retained as per the Kaiser criterion. It clearly indicates that all items were loaded significantly with positive factor loadings except two items (i.e. MOP1 and SDF7). Factor analysis resulted into 3 factors based on the Eigen values. These factors were named as - Online Platforms, Technology Overload and Student Digital Fatigue. The total variance explained by these factors came out to be 70.468%. Factor analysis and its subsequent results were tabulated in Table 2.

Table 1.
Descriptive Statistics,
Standard Loadings and
Factor Mean

Constructs	Item Code	Statements	M	SD	FLs	FM
Multiple Online Platforms (MOP)	MOP2	I find using multiple online platforms i.e., Zoom, Google Meet, etc more confusing.	3.35	1.101	.545	3.37
	MOP3	I consider multiple online platforms very difficult to use.	3.81	1.071	.810	
	MOP4	I feel irritated in using multiple online platforms.	3.59	1.127	.801	
	MOP5	I need to upgrade adequate skills to use different online platforms.	3.80	0.980	.840	
	MOP6	It is problematic for me to switch from one educational platform to another.	3.65	1.054	.744	
Technology Overload (TO)	TO1	This technology has compelled me to work much more quickly.	3.82	0.877	.762	3.76
	TO2	This technology is forcing me to perform more work than I can handle.	3.69	0.972	.811	
	TO3	Because of this technology, I'm obliged to work on incredibly tight deadlines.	3.80	0.907	.848	
	TO4	To adapt to new technology, I ha ve had to adjust my working habits.	3.86	0.924	.826	
	TO5	Because of the increased technological sophistication, my workload has grown.	3.66	0.984	.705	
Student Digital Fatigue (SDF)	SDF1	I feel exhausted after online classes.	3.69	1.057	.768	3.46
	SDF2	Excessive screen time is causing stress on my eyes.	3.94	1.088	.830	
	SDF3	I often feel headache.	3.67	1.234	.845	
	SDF4	I get tired very quickly during online class.	3.25	1.139	.789	
	SDF5	I am suffering from decreased and disturbed sleep.	3.26	1.210	.791	
	SDF6	After online classes, I tend to avoid social situations.	2.97	1.219	.726	

Source: Author's Calculation

4.3 Confirmatory Factor Analysis (CFA)

In measurement model, all items were having SLs in between 0.71 to 0.89. Further, the fit indices showed that the measurement model fitted the data satisfactorily where, CMIN/DF = 2.839, RMR=0.33, GFI = 0.954, AGFI= 0.900, CFI= 0.914 and RMSEA= 0.077.

4.4 Reliability and Validity

Internal consistency (?) and Composite reliability (CR) was within adequate range (i.e.>0.7) in the measurement models. The average variance extracted (AVE) were also within the acceptable range i.e. >0.5. Since, the AVE values were greater than the square multiple correlation between the constructs of all latent variables, it was confirmed that the model has adequate discriminant validity (Fornell & Larcker, 1981).

4.5 Structural Equation Modeling-Hypothesis Testing Results

As reflected in Table 3 and Figure 2, path estimates indicated that both the hypotheses i.e. H1 and H2 stand accepted. In addition, the integrated model also showed the satisfactory model fit indices (i.e. CMIN/DF=3.705, GFI=0.939, AGFI=0.845, CFI=0.877, RMR= 0.404 and RMSEA=0.071).

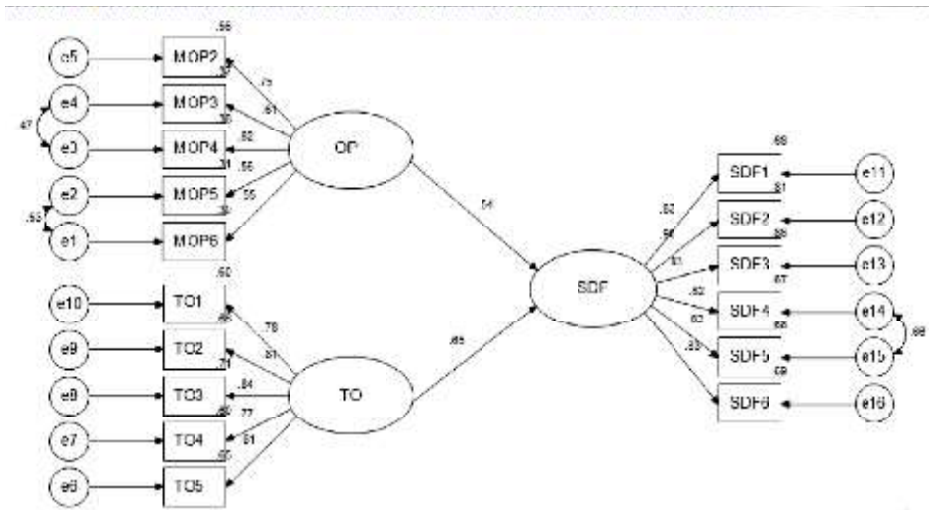


Figure 2:
Structural Model: The
Impact Assessment of
Multiple Online Platforms
and Technology Overload
on Student Digital Fatigue

Source: AMOS Output

Hypotheses	Paths	Coefficients (β)	Decision
H1	Multiple Online Platforms → Student Digital Fatigue	0.54**	Supported
H2	Technology Overload → Student Digital Fatigue	0.65**	Supported

Table 3.
Results Summary of
Hypotheses Testing

Note: ** p < 0.01, * p < 0.05

Source: Author's Calculation

5.Discussion and Implications

For the present study data was collected from the students regarding digital fatigue during the COVID-19 pandemic. Over time, educational technology has progressed. There are multiple advanced online education platforms available today, as well as numerous specialized educational resources for an array of disciplines (Chakraborty et al., 2021). Collaborative learning is also possible with several online educational platforms (Adhikary et al., 2010). However, several empirical research studies has also revealed that students are experiencing stress and anxiety as a result of the pandemic

(Arora et al., 2020; Islam et al., 2020). So, the present study assumed relationships between independent (i.e. multiple online platforms and technology overload) and dependent variable (i.e. digital fatigue) through structural equation modeling (SEM). The standard regression weight between the multiple online platforms and student digital fatigue (SRW= 0.54, $p<0.01$) is showing a significant impact of using multiple online platforms on student digital fatigue, hence established the hypothesis first (H1) of the research study. In addition to this, standard regression weight between the technology overload and student digital fatigue (SRW= 0.65, $p<0.01$) shows the significant impact of technology overload on student digital fatigue. This confirms the second hypothesis (H2) of the study. Furthermore, the overall model fit indices (CMIN/DF= 2.839, RMR=0.33, GFI= 0.954, AGFI = 0.900, CFI= 0.914 and RMSEA = 0.077) were within the acceptable range. Thus, it can be concluded that the model demonstrate a rational fit to the data.

From the above discussions, some of the theoretical as well as practical implications can be drawn. The present study makes two substantial additions to theory and literature; foremost, it broadens the understanding of concept of digital fatigue among the university students. Though, many studies have been conducted on related constructs like zoom fatigue (Fauville et al., 2021), technology fatigue (Halupa and Bolliger, 2020), social media network fatigue (Dhir et al., 2019) but digital fatigue is hardly studied. Next, the study adds on to the literature by identifying two major factors affecting digital fatigue i.e. multiple online platforms and technology overload. Further, since use of multiple online platforms has a significant impact on student digital fatigue, it is an implication for the faculty members that they should not switch frequently to multiple video-conferencing applications (Zoom, Google Meet, etc). If faculty members are switching due to connectivity issues or other features of the apps, then it must be implemented deliberately after training and familiarity with the application prior hand. Otherwise, students will become confused and are likely to feel mental fatigue. Furthermore, technology overload also has a positive impact on student digital fatigue. Thus, it is recommended to offer technical support to the students to handle the technology. Moreover, the classes must be planned and scheduled in a way that offer sufficient time to complete the work and students are able to manage the stress or else they may feel exhausted after continuous online classes.

6. Conclusion

It can be concluded from the result of the study that use of multiple online platforms and technology overload significantly leads to digital fatigue among students. It has been remarked that in education sector, it is not possible to maintain social distance. Thus, it is imperative to take essential measures concerning the education in order to cope up with pandemic situation (Afacan and Avci, 2020). Such pandemic restrictions strained universities round the globe to shift from conventional mode to online mode of learning (Manea et al., 2020). But teachers as well as students have to faced pros and cons of online mode (Kamal and Illiyan, 2021). Overuse of digital tools for the learning resulted in burnout among the students. Moreover, several online platforms used by different teachers may create a situation of turmoil and make it difficult for the students to organize and likely to cause fartigue. The findings of the study suggest that online video conferencing platforms can be used as an important mean for instruction if used in proper framework with appropriate training and preparation. However, using multiple online apps or excessive technology can equally strengthen or may create weariness among the users. Furthermore, technology overload may result in anxiety, particularly eye discomfort, dejection and fatigue among the students. Thus, the people possibly will show decline in efficiency, frustration, tiredness, and unease. The excessive use of technology has turned our life as digital life during the pandemic which have long run negative consequences like distressing temper, ambiguity and pessimistic sentiment like bad temper and violent behaviour (Rajkumar, 2020).

7. Limitations and Future Scope

Though the study offers some helpful discoveries, it also has several flaws that might serve as a foundation for future research. MOP, TO, and SDF are the study's main constructions.

The model built in this study has proven to be highly useful and definitive; however future research may include additional variables that may have an impact on SDF. Second, only students from the University of Jammu in J&K were included in the study. As a result, the findings cannot be applied to India's whole higher education system. Future studies may widen the coverage of the population by considering students from various colleges. Similar studies might be carried out in various industries to increase the generalizability of the findings. Third, the current study is based on cross-sectional data acquired at a certain moment in time for the study. As a result, longitudinal research might be used to collect data across many time periods in order to explore digital fatigue more thoroughly. Researchers may also look into the extent of digital fatigue among faculty.

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Emerging Market & Mobile Technology Usage: Evaluating intention to use Mobile Banking in India

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Emerging Market &
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72

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Abstract

Purpose: This paper aims to explore the determinants that influence the intention to adopt Mobile banking services among the users of Northern India.

Design/methodology/approach - Using the Purposive sampling, a sample of 403 users provided opinions about their intention to adopt Mobile Banking services.

Findings - Using Structural Equation Modeling (SEM), the responses were analyzed, and the outcome uncovered that seven dimensions impact users' expectation to recognize mobile banking while two determinants have a negative impact.

Research limitations/implications - This study was none less than an exception. The main limitation of the study was that respondents were selected from urban areas. Likewise, only the users of Mobile Banking were considered while non-users were not considered and the last being that the findings drawn from this investigation are based on cross-sectional data. Future studies should implement longitudinal studies.

Practical implications - This study will serve as a base for the banks as far as understanding user needs are concerned. Besides, it will help the banks to devise the strategies as far as the successful implementation of Mobile Banking is concerned. Further, this study will provide insight into what banks should do if they have to improve the adoption rate of mobile banking.

Originality/value - This paper is a maiden attempt that investigates the determinants of mobile Banking adoption as far as users of the Northern part of the country are concerned.

Keywords: Mobile Banking, Intention, India, Relative Advantage, Social Influence

Paper Type- Research Paper

1. Introduction

The mobile business has been mounting swiftly in the world by way of extending its application from mere communication to a lifestyle gadget. It has materialized a novel platform for fulfilling consumers' diverse habitual wants (Skeldon, 2011). Keeping into thought the significance of this marvel in the consumers' lifestyle, financial institutions have consistently invested significant resources in this business as a result of which "mobile banking applications" are sprouting as a novel retail medium for banks (Malaquias & Hwang, 2018, Picoto & Pinto, 2021). It has offered various standards such as omnipresence, personalization, adaptability, spread, and other imperatives that were less predominant in the traditional digital banking channels (Geo et al., 2017). Recognizing the importance of this advancement, financial institutions worldwide have consistently attempted to render their services through this technology, including banks operating in India. As of now, more than 450 banks have been authorized to make available m-banking services in "India" ("Reserve Bank of India [RBI] The mobile 2019). Despite these advantageous facilities, the extant literature disguises that m-banking remains one of the least espoused categories of self-banking administrations contrasted with web banking or mechanized teller machines (Chakiso, 2019). It reflects with Hanafizadeh et al. (2014), who opined that regardless of expanded availability of m-banking & innovative advancement, the magnitude of users' doesn't coordinate with the prospects thereby, warrants for further examinations.

Mobile banking has the inherent advantage of making people's lives comfortable in the social and economic context. India being one of the fastest developing countries, is



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transforming into the quickest mobile market (Chawla & Joshi, 2017) as growth foreseen by the advertisers will be almost around seventy-five percent of the total populace by 2025 (Global System for Mobile Communications[GSMA], 2018a). It will incorporate around 310 million new endorsers to the mobile economy within the coming three years (Global System for Mobile Communications [GSMA], 2017b), with figure touching around 530 million by 2018 ("India set to have 530 million Smartphone users in 2018", 2017), "with the north zone having the noteworthy rate, with more than one of every ten owning a smartphone. Western India follows with an 8 percent incidence in the region, while it stands 6 percent for the south and east zones respectively" (Nielsen, 2012). Although the degree of mobile banking adoption has been expanding throughout the last few years, it has yet to be copiously implemented as the novel payment inclination in India (Liebana-Cabanillas et al., 2020; Singh et al., 2020). The people are hesitant in adopting m-banking on the grounds that developing countries like India have not redesigned their telecom and banking foundation which supports mobile banking (Picoto & Pinto, 2021). Besides, the lack of financial literacy, financial exclusion, complex technology structure, and the perception of online fraud are also contributing factors to the high rate of non-adoption of this service in India (Kumar et al., 2020). As such, it can be contended that the greatest challenge for the accomplishment of this innovation in developing nations is in motivating the consumers to use it as an alternative to the traditional channels of banking (Baabdullah et al., 2019). Thus, a profound examination of attributes influencing mobile banking's intention would be valuable to improve the comprehension of users' comportment and innovation usage as far as India is concerned (Gupta & Arora, 2017; Kumar et al., 2020; Liebana-Cabanillas et al., 2020; Oliveira et al., 2017).

Endeavors to create an ideal model to precisely anticipate the intention to embrace a novel innovation have incorporated models from past investigations on innovation acceptance in general and m-banking acceptance specifically (Puschel et al., 2010). However, a considerable number of studies have taken into account the barriers and drivers that influence online banking adoption (Kaur et al., 2020; Msweli, & Mawela, 2020; Mohammadi, 2015), and others have primarily focused on internet banking (Boateng et al., 2016; Ho et al., 2020; Patel & Patel, 2018). While, the mobile banking industry continues to play a key role in providing financial services to residents in this region (Mohammadi, 2015), only a few studies have explored factors driving mobile banking acceptance in developing countries from the perspective of consumers (Malaquias & Hwang, 2016; Kumar et al., 2020). Furthermore, the impact of social and individual stimuli in overriding consumers' reluctance towards mobile banking seems to be a research limitation in this area that needs to be addressed. In addition, the extant literature also establishes that the prime models and theories centering on innovation acceptance and acknowledgment have risen out of and developed in western nations with cutting-edge economies. Since maximum m-banking investigations have utilized a broad scope of systems and strategies, there is a pestering requirement of a coordinated model for attributes influencing intention to embrace m-banking through combining and synchronizing the constructs of the most popular models of innovation adoption particularly in the context of developing nations (Liebana-Cabanillas et al., 2020; Picoto & Pinto, 2021; Shankar & Rishi, 2020). Undoubtedly, if we have to comprehend meticulously, such integrated models can clarify and envisage users' actions in nations with the maximum populace (Khosrow-Pour, 2017). The problem needs a thorough investigation to establish the reasons for any kind of possible inhibition, reluctance, internet problems, or lack of awareness among the mobile users' towards the adoption of mobile banking whatsoever and thereby address the issues. Against the backdrop of these gaps, this investigation intends to address this gap by conceptualizing a model that can be acquainted as an essential mediation to address the users' intention of adopting mobile banking. This examination adds to the comprehension of how to upgrade acknowledgment of mobile banking in India by distinguishing the fundamental deterrents (from the client's point of view) that the banking sector needs to focus upon to accelerate the dispersion of m-banking and break down the similitudes and contrasts arising in the progression of mobile banking acknowledgment. Consequently, the investigation broadens the mobile banking literature in the Indian setting.

2. Literature Review and Hypotheses Development

The intensifying advances and innovations within the banking sector are revolutionizing. They have created uncertainty and excitement among an individual's banking mindset who continues to remain on their toes to see what these technologies have to offer him. However, there is no unified position from the user's end regarding the success or failure of these developments. It relies mostly on the affirmation by an individual in terms of the extent to which it satisfies the need (Hassan & Nika, 2021). In that capacity, the subject of elements that tend to bear on the consumer's mindset has received considerable attention from the last few years. Thereby, an assortment of theoretical perspectives have evolved over a period of time including prominent models like Innovation Diffusion Theory (IDT) by "Rogers (1983)", Technology Acceptance Model (TAM) by "Davis (1989)", Social Cognitive Theory by "Bandura (1989)", Unified Theory of Acceptance and Use of Technology (UTAUT) by "Venkatesh et al., (2003)", and Task-technology Fit by "Goodhue and Thompson (1995)" to investigate the adoption of mobile banking. These theoretical bases are derived from social psychology theories, such as the Theory of reasoned action (TRA) by "Fishbein and Ajzen (1975)" and the Theory of Planned Behavior (TPB) by "Ajzen (1991)". All these models outfit new experiences into the appropriation and utilization of the technological know-how both at an individual and authoritative dimensions (Patel & Patel, 2018).

Using these models a colossal number of investigations have been undertaken so far. Mehrad and Mohammadi (2016), through their study, uncovered that a colossal number of elements create a notion within the mind of a user, which was contended by Mukherjee and Nath (2003), who opined that in an online-based financial setting, four things determine to what extent an individual will acknowledge an innovation which includes reliability, protection, safety, and trustworthiness of the procedure. Usually, users opt for technologies that add some value to their lives. Conversely, some could rule in opposition to it if they see the development to be flighty and difficult to utilize. Similarly, some other portion may be worried about their safety and protection in terms of information and money and may build up an absence of trust in technological advancement. In contrast, any other section may be worried about the transaction cost (Chawla & Joshi, 2017). In the past years, much attention has been given to exploring internet banking adoption as it was the lone way of conducting financial transactions without being present at a virtual place. However, the emergence of smartphones created a new era in the field of innovations. Researchers began looking at it as a possibly robust medium for regulating financial offerings. They started researching the consumers, i.e., how, when, and where they use such an advanced innovation. With this theme, researchers started exploring different dimensions of mobile banking. Researchers in different studies have used more than fifteen variables; however, just nine factors with adequate literature support were recognized and utilized for this investigation. Based on the literature overview of different studies by various authors (Alalwan et al., 2018); (Alalwan et al., 2017); (Afshan & Sharif, 2015); (Akturan & Tezcan, 2012); (Baptista & Oliveira, 2016); (Bandura, 1989); (Choudrie et al., 2018); (Chawla & Joshi, 2017); (Chen, 2013); (Davis, 1989); (Davis et al., 1989); (Goodhue & Thompson, 1995); (Hanafizadeh et al., 2012); (Jamshidi et al.,2018); (Koksal, 2016); (Kesharwani & Bisht, 2012); (Lee & Chung, 2009); (Lin, 2011); (Malaquias, Malaquias & Hwang, 2018); (Mullan et al., 2017); (Makanyeza, 2017) (Patel & Patel, 2018); (Shankar & Datta, 2018); (Singh & Srivastava, 2018); (Sahoo & Pillai, 2017); (Tam & Oliveira, 2017); (Tan & Lau, 2016); (Thakur & Srivastava, 2014); (Venkatesh et al., 2003); (Warsame & Ileri, 2018); (Yen & Wu, 2016); (Zhou, 2018); (Zhou, 2012); (Zhou, 2011); (Zhou et al., 2010), Perceived Usefulness (P.U.) and Perceived Ease of Use (PEOU), which are the assembles of the TAM (Technology Acceptance Model), Social Influence (S.I.), which is a key construct of TPB (Theory of Planned Behavior), Facilitating Conditions (F.C.) which is a build of UTAUT (Unified Theory of Acceptance and Use of Technology), Relative Advantage (R A) which is a construct of IDT (Innovation Diffusion Theory), Trust, Perceived self-efficacy (PSE) which is a develop of SCT (Social Cognitive Theory), Perceived Risk, Awareness, were the key and predominant motives that impact in selection and acknowledgment of mobile banking and were used for this study.

2.1 Perceived Usefulness and Intention to Adopt Mobile Banking

PU has been defined as "the prospective user's subjective probability that using a specific application system will increase his or her job performance within an organizational context" (Akturan & Tezcan, 2012, p.446). From the literature point of view, the impact of P.U. is broadly acknowledged, and various examinations have verified its association empirically and found that P.U. serves as a valuable function in recognizing mobile banking. It was established to be one of the key variables influencing M-banking facilities' continued usage (Faqih & Jaradat, 2015; Thakur & Srivastava, 2012; Yen & Wu, 2016). In Jordan, Alalwan et al., (2015), reported P.U. as the driver that encourages the aim of embracing m-banking in a positive manner which was further supported by the study undertaken in Australia by Wessels and Drennan (2010), who uncovered that P.U. tends to have a strong constructive impression on adoption intention of using m-banking. Similarly, in India, PU was determined to negatively influence M-payment acknowledgment intention (Shankar & Datta, 2018). As such, it is hypothesized that:

H1: "Perceived Usefulness has a significant impact on users' intention to adopt Mobile Banking services".

2.2 Perceived Ease of Use and Intention to Adopt Mobile Banking

Within the TAM framework, "PEOU" is asserted as one of the contributing features that encourage the adoption intention of a user in terms of using a system. It is "characterized as the degree to which a user holds a notion that learning or using a system is handy to practice: (Singh & Srivastava, 2018). A superfluity of investigations on mobile banking has demonstrated the substantial influence of PEOU on consumers' adoption intention and utilization of m-banking (Kim & Baek, 2017; Tam & Oliveira, 2017; Thakur, & Srivastava, 2014; Yen & Wu, 2016; Yen et al., 2010). Mehrad and Mohammadi, (2016), in Iran, found that PEOU significantly impacts in case of selecting mobile banking and serves as a base for users as far as acceptance or rejection of mobile banking is concerned. Similarly, Thakur and Srivastava, (2014) observed that PEOU is a standout amongst the critical drivers that generally affect Mobile Banking. Subsequently, it is hypothesized that:

H2: "Perceived Ease of Use has a significant impact on users' intention to adopt Mobile Banking services."

2.3 Social Influence and Intention to Adopt Mobile Banking

"Social Influence, also known as social Norms" (Makanyeza, 2017), endeavors to comprehend the modifications introduced in a consumer's habit by the outside sources involving the individuals who are close to him, the perception of whom can lead to acceptance or denial of a technology. Its significance has been primarily acknowledged within mobile banking and internet banking studies (Thakur & Srivastava, 2014; Patel & Patel, 2018). Zhou et al., (2010), through their study, revealed that S.I significantly affects user adoption. However, a study by Tan and Lau, (2016) empirically found out that social influence has an instantaneous effect on the mobile banking adoption intention which was validated by the study undertaken by Oliveira et al., (2016) in Portugal, who observed that social influence impacts m-banking users' directly as well as indirectly and recommendation intention of this technology. Subsequently, it is hypothesized that:

H3: "Social Influence has a significant impact on users' intention to adopt Mobile Banking services."

2.4 Facilitating conditions and Intention to Adopt Mobile Banking

Facilitating Conditions reflects the assets (resources and technological infrastructure) and knowledge possessed by an individual, including the support provided by the bank round the clock. It is a considerable factor that influences the users' adoption (Zhou et al., 2010). Oliveira et al., (2014) argued that facilitating conditions stanchly sways the users' aim of acknowledging m-banking, further acknowledged by Afshan and Sharif's (2015) study uncovered Facilitating Conditions have a critical relationship with the intention of embracing m-banking. Shambare (2013) opined that in the case of an encouraging environment, there is

a greater chance that users will embrace headway. Subsequently, it is hypothesized that:
H4: "Facilitating Conditions have a significant impact on users' intention to adopt Mobile Banking services."

2.5 *Relative Advantage and Intention to Adopt Mobile Banking*

"Relative Advantage" is characterized as how much an advancement presents extra advantages than its forerunner (Makanyeza, 2017). In the current times, a user assesses what edge a product, service, or a particular technology provides over its precursor (Hassan & Nika, 2018). As such, under the domain of technology, several studies have examined the impact of this construct. The research conducted by Lin, (2011) revealed that relative advantage significantly influences the attitude, which in turn leads to mobile banking adoption intention. Similarly, Makanyeza (2017) in Zimbabwe found that Relative Advantage significantly impacts m-banking acknowledgment intention. Consequently, it is hypothesized that:

H5: "Relative Advantage has a significant impact on users' intention to adopt Mobile Banking services."

2.6 *Trust and Intention to Adopt Mobile Banking*

Acceptance of m-banking is an outcome of the trust that a customer possesses. It has been "characterized as a person's eagerness to acknowledge vulnerability on the grounds of constructive expectations in regards to the habits or intention of one another in a circumstance described by interdependence and threats". Trust serves as the decisive factor as far as reception or dismissal of innovation is concerned. Alalwan et al., (2017) expressed that trust essentially and emphatically influences behavioral intention. In like manner, the investigation led in Korea by Gu et al., (2009) has shown that trust is connected with the mobile banking adoption intention. While, as Koenig-Lewis et al., (2010) contended, trust is a crucial indicator that reduces the risk that a consumer perceives about mobile banking. Therefore, it is hypothesized that:

H6: "Trust has a significant impact on users' intention to adopt Mobile Banking services".

2.7 *Perceived Self-Efficacy and Intention to Adopt Mobile Banking*

Perceived Self-Efficacy has been "defined as an individual's potential to ace an undertaking or circumstance and thereby effectively arrive at a preferred effect" (Bailey et al., 2017). In terms of the dimension of Self-Efficacy, earlier studies have proven that it is one of the prevalent beliefs that impact in acknowledging an innovation. Alalwan et al., (2017) found that PSE has a massive impression on customers' social aim through their investigation. The finding was further supported by Shankar and Datta, (2018), who found that Perceived self-efficacy impacts the user's adoption intention of M-payments positively. Similarly, in Chinhoyi, Zimbabwe, it was recorded that PSE has an optimistic impact on acknowledging m-banking offerings (Makanyeza, 2017). Subsequently, it is hypothesized that:

H7: "Perceived Self-Efficacy has a significant impact on users' intention to adopt Mobile Banking services."

2.8 *Risk and Intention to Adopt Mobile Banking*

Risk has been defined as "the users' conviction with respect to the probability of enduring a misfortune in the quest for an objective" (Mortimer et al., 2015). Risk & uncertainty are inherent properties that cannot be separated from any transaction (Tiwari et al., 2021). While performing a transaction, a user can experience different types of issues that may occur due to technical breakdown, inaccessibility of account, password breakdown, etc. Risk in the past has been studied to a greater extent under different domains. In the perspective of m-banking, it has been viewed as a critical construct of user's adoption intention (Alalwan et al., 2018; Alalwan et al., 2017; Hanafizadeh et al., 2012; Mortimer et al., 2015). A considerable number of investigations have reported a substantial impact (Wessels & Drennan, 2010; Hanafizadeh et al., 2012). Dineshwar and Steven, (2013) observed that risk is the principal obstruction that impedes a user's adoption intention of mobile banking.

Similarly, Cruz et al., (2010) found that a greater part of users' do not opt for mobile banking services, and the rationale behind it is the risk, which was upheld by the study results of Makenzeya (2017), which revealed that perceived risk adversely influences a user's adoption intention. Through their study, Thakur and Srivastava (2014) concluded that a user could face as many as three risks, including; "security risk, privacy risk, & monetary risk." Subsequently, it is hypothesized that:
H8: "Perceived Risk has a negative impact on users' intention to adopt Mobile Banking services."

2.9 Awareness and Intention to Adopt Mobile Banking

Awareness has been "characterized as a procedure of information, influence, choice, and affirmation by a customer before being prepared to undertake an offering i.e. product or service" (Safeena et al., 2012). It is undoubtedly one of the crucial reasons that help in the development of trust among users (Afshan & Sharif, 2015). Through their study, Pikkarainen et al., (2004) revealed that the information possessed by users optimistically affects online banking acknowledgment. Similarly, Sahin (2006) empirically explored that awareness prompts the acknowledgment of a new innovation since it limits the vulnerability related to it. Daud et al., (2011) in Malaysia examined the factors that encourage mobile banking achievement and found that mobile banking realization has an enormous impact on consumers' frame of mind, which impacts the behavioral intention of a user. Consequently, it is hypothesized that:
H9: "Awareness has a significant impact on users' intention to adopt Mobile Banking services".

2.10 Conceptual Model

The present study was undertaken with the objective of studying the relationship between the nine independent factors and one dependent factor. The review of related studies indicates the factors selected may help acknowledge mobile banking. In light of those assertions and the objectives, a number of hypotheses have been formulated. Since previous studies have emphasized that various personal or social factors impact the intention as far as acceptance or denial of mobile banking is concerned, the present study aims to seek insights into the relationship between these nine independent factors and one dependent factor to come up with a responsive resolution to the research problem at hand. Embedded in the study are both historical and contemporary interpretations and the theoretical support about these variables. The underneath referred to in Figure (1), depicts this examination's conceptual model to the extent of the previous composing's suggestion. It epitomizes the components that impact as far as mobile banking is concerned.

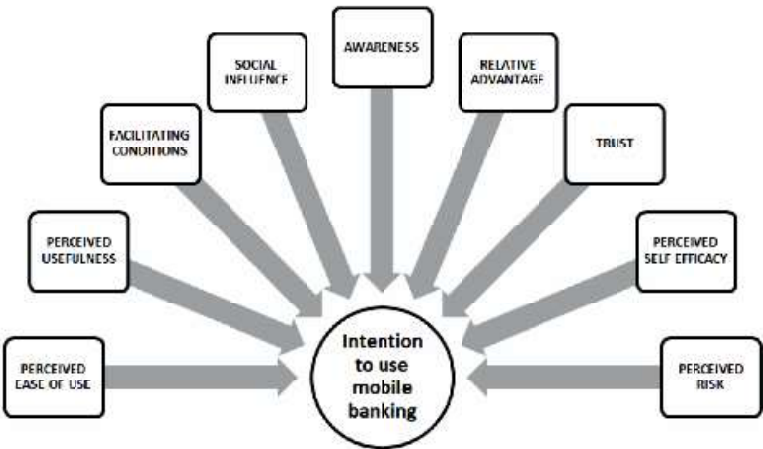


Figure 1:
Conceptual Model

3.2 Questionnaire Design

For the development of the questionnaire for this study, items were adopted from the research carried out by diverse researchers representing nine independent factors (Boonsiritomachai & Pitchayadejanant, 2017, Davis et al., 1989, Dineshwar & Steven, 2013, Featherman & Pavlov, 2003, Gefen et al., 2003) Gupta & Arora, 2017, Kim et al., 2009, Makanyeza, 2017, Olivera et al., 2014, Venkatesh et al., 2003; 2012 & Zhou et al., 2010) along with one dependent variable (Kim et al., 2009; Makanyeza, 2017). Initially, the endogenous and exogenous factors were computed with the help of 47 items. After running the factor analysis, five items were removed since their values did not load on the expected component for this sample. The questionnaire was also evaluated by two professors having expertise in marketing, and their opinion was sought (Tull & Hawkins, 1994) and by some scholars. On their suggestions, some of the questions were modified to suit the present examination structure. Moreover, in the development of the instrument, a five-point Likert scale was utilized.

3.3 Sampling and Data collection

Based on the number of items used in the questionnaire (each item requires respondents extending at least five respondents, and the most extreme ten respondents (Kline, 2005), a sample size of 420 was determined. The research instrument contained 42 items, so the itemized sample worked out to be 420 (42 items * 10). However, considering the likelihood of any nonresponse, unengaged responses, and outliers, the questionnaire was disseminated to 584 respondents but only 429 questionnaires were returned, indicating a response rate of 73.45 percent. The elevated retort rate can be credited to the fact that mobile banking has stretched out a helping hand to customers in catering to different needs. Out of 429 questionnaires honored, only 403 questionnaires were deemed to be fit for analysis. To select the participants of the study, the Purposive sampling method was adopted. Since the number of active mobile banking users was unknown, the researcher targeted the Facebook Pages of five banks (SBI, PNB J&K Bank, Hdfc Bank, and ICICI Bank) and enlisted the number of persons who had liked the pages of these selected banks. Subsequently, the enlisted persons were reached through a text message, and upon their consent, their email ids were sought. At first, they were illuminated about the purpose of the investigation. Besides, they were also inquired whether they are active users of mobile banking or not. The link of the questionnaire was texted/ emailed to those customers only who had some involvement with mobile banking

4. Data Analysis

The demographic distinctiveness of the 403 respondents was scrutinized. Out of the 403 respondents, 67.24 percent constituted the male population, and 33.49 percent were females. (3.47) percent belonged to the age gathering of up to 20, (22.33) in the age gathering of 20-28, (45.65) in the age gathering of 28-36, (21.83) in the age gathering of 36-44, and (6.69) in the age gathering of 44 or above. The greater part of respondents were employees (49.57), followed by businessmen (20.84), students (15.63), professionals (12.15), and others (1.4).

4.1 Scale Properties

Reliability

The reliability of the instrument was assessed using the overall Cronbach Alpha. The Cronbach Alpha estimation determined through SPSS 20.0 was 0.792 (See Table 1), which is above the acceptable level of 0.70 in social sciences research (Hair, Anderson, Tatham & Black, 1998), signifying that reactions are profoundly predictable and dependable.

No. of Items	Cronbach's Alpha
42	.792

Source: Authors own calculation

Table 1.
Reliability Statistics
(Cronbach's Alpha)

4.2 Analysis & Results
The data analysis was done at three stages: First, the study constructs were extracted through EFA; second, confirmatory factor analysis was conducted to check whether the dimensions explored through EFA analysis offered a good fit to the data of the study; lastly, the hypothesized relationships were tested through a structural equation modeling (SEM) procedure.

4.2.1 Exploratory Factor Analysis
Using SPSS 20.0, the data collected was examined. In order to explore the fundamental data structure, "Exploratory Factor Analysis" was performed (Hair, Black, Babin, Anderson & Tatham, 2006; Parasuraman, Zeithaml & Berry, 1988) and to ensure the dimensionality, exploratory factor analysis was run separately for each construct initially. "Principal Component Analysis" with "Varimax rotation and Kaiser Normalization" (Nunnally, 1978) was used to demonstrate the structure of factors and characterize the items according to their respective dimensions. Responses obtained for the items which were worded negatively were reverse coded using the "transform compute variables" option in SPSS. The value of 0.50 is considered as an acknowledgment level for Factor loading (Hair et al., 2006), which was used as a cutoff score for the present study. Using "Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy", sample sufficiency was measured which shows whether there are enough correlations in the data set to carry out EFA or not and the KMO for the data set was notably high (0.829), which is above the acceptable level of 0.50. The value for Bartlett's test of Sphericity was recorded 2813.533 at .000 level of significance with degrees of freedom 861, inferring that variables are related to each other. The questionnaire included 42 items representing independent & dependent variables and EFA was run with Varimax rotation on these items. The criterion to select the items for the main study was laid down (Hair, Celsi, Ortinau & Bush, 2008); only those items with factor loading greater than or equal to 0.50 and Eigenvalue greater than 1 were selected.

4.2.2 Measurement Model
Using Amos 23.0, for the very first time, the measurement model was permitted to run (Fig 2). Confirmatory Factor Analysis was utilized to assure the passable level of model fitness as well as construct validity, reliability, and the outcomes specified an acceptable data fit for the model. The results showed that: Chi-square =1723.433, with degree of freedom at probability level = .000($P < 0.05$), GFI= 842, AGFI=0.867, NFI= 0.851 (Joreskog & Sorborm, 1989), CFI= 0.898 (Hu & Bentler, 1999), RMSEA= 0.051, and RMR = 0.032 (Browne and Cudeck, 1993). In addition, validity and composite reliability (C.R.) were also assessed. The values of C.R. for all constructs are above the minimum acceptance level of 0.60 (Bagozzi & Yi, 1988) (See Table 2). The estimations of composite reliability for all develops are over the base acknowledgment level of 0.60 which thereby signifies the C.R. of the scale. In order to determine the validity of the scale, the Values of AVE (average variance extracted) were used. All the estimations of AVE were over the base limit level of 0.50 which affirms convergent validity for the constructs (Fornell & Larcker, 1981) (Refer Table 2).

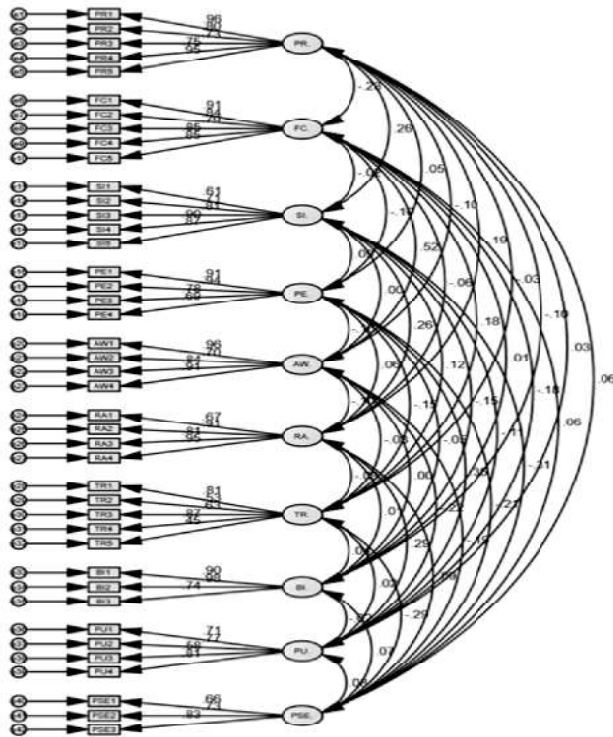


Figure 1:
Framework

Note 1: Note*:PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A. - Relative Advantage, AW-Awareness, PSE- Perceived Self Efficacy, B.I.- Behavioral Intention.

	CR	AVE	MSV	MaxR (H)	P.U.	F.C.	P.R.	S.I.	R.A.	A.W.	PEU.	B.I.	T.R.	PSE.
P.U.	0.912	0.779	0.026	0.964	0.882									
F.C.	0.917	0.689	0.068	0.977	-0.145	0.830								
P.R.	0.927	0.719	0.270	0.982	0.016	0.119	0.848							
S.I.	0.889	0.620	0.151	0.985	-0.160	0.239	-0.025	0.788						
R.A.	0.906	0.710	0.099	0.988	0.009	0.028	-0.063	0.261	0.843					
A.W.	0.917	0.737	0.270	0.990	0.006	0.089	0.520	0.004	-0.102	0.858				
PEU.	0.903	0.702	0.072	0.992	-0.049	-0.031	-0.098	0.089	0.068	-0.157	0.838			
B.I.	0.879	0.655	0.099	0.995	0.070	0.149	-0.227	-0.126	0.314	-0.142	0.269	0.810		
T.R.	0.799	0.614	0.068	0.995	0.034	0.260	0.180	0.127	-0.088	-0.020	-0.152	0.090	0.677	
PSE.	0.849	0.671	0.151	0.995	0.067	-0.173	-0.110	-0.388	0.051	-0.252	-0.105	0.072	-0.238	0.819

Table 2.
Fornell and Larcker Criteria

Note1: Values in the diagonal of the above matrix are the square root of the AVE.

Note2: PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A.- Relative Advantage, AW-Awareness, PSE- Perceived Self Efficacy, B.I.- Behavioral Intention.

Note3: Own Calculation of Author

After confirmatory factor analysis, we tested the relationship between the study variables using structural equation modeling (SEM). The parameters of the model exhibited the best fit between the theoretical model and the data of the study.

Before proceeding with the final analysis, we assessed the discriminant validity using Fornell & Larcker criteria (Fornell & Larcker, 1981). Our results meet the criteria in the sense that the square root of the average variance extracted for all the constructs is greater than the corresponding row and column correlation values.

4.2.3 Test of hypotheses

The hypotheses testing was done through structural equation modeling. The structural model test (See Table3) exhibited a good fit (Carmines & McIver, 1981; Hu & Bentler, 1999). Also, the goodness and badness measures of fit indicated a good fit. The TLI and CFI estimates were greater than the threshold of 0.95 (See Table3) signifying a good fit (Bentler, 1990; Bentler & Bonnet, 1980). Other indices like RMSEA and RMR values 0.051 and 0.042, respectively, also supported the fit between the hypothesized model and the data of the study (Byrne, 2013; Fan & Sivo, 2005). Thus, the structural model reveals desirable psychometric properties.

Table 3.
Results of structural model test

Model	CMIN/df	p	RMSEA	SRMR	TLI	CFI
Overall Structural Model	2.57	.000	0.052	0.043	0.971	0.997

Note: RMSEA - Root mean square of approximation; SRMR - standardized root mean residual; TLI - Tucker-Lewis index; CFI - comparative fit index.

P < 0.001

Source: Authors own calculation

The results exhibited support for all the hypotheses (See Table 4).

Hypothesized path	Unstandardized parameter estimate	Standardized parameter estimate	t-value	Sig.
FC. → BI.	0.166	0.197	7.700	<i>p</i> < 0.001
PR. → BI.	-0.133	-0.256	-1.974	<i>p</i> < 0.001
SI. → BI.	-0.202	-0.275	-1.959	<i>p</i> < 0.001
RA. → BI.	0.233	0.339	5.583	<i>p</i> < 0.001
AW. → BI.	0.022	0.051	6.102	<i>p</i> < 0.001
PEU. → BI.	0.129	0.277	3.565	<i>p</i> < 0.001
TR. → BI.	0.151	0.181	2.456	<i>p</i> < 0.001
PU. → BI.	0.035	0.056	1.894	<i>p</i> < 0.001
PSE. → BI.	0.033	0.032	1.112	<i>p</i> < 0.001

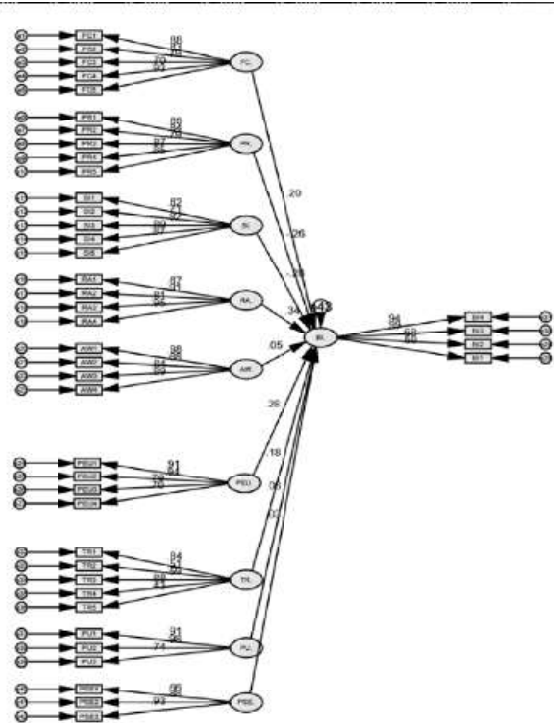
Note 1: ****p* < .001

Note 2: PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A. - Relative Advantage, AW-Awareness, PSE-Perceived Self Efficacy, B.I.- Behavioral Intention.

Source: Authors own calculation

The structural model revealed significant (*p* < 0.001) and positive (*β* = 0.197) impact of facilitating conditions on behavioral intention, relative advantage on behavioral intention (*p* < 0.001, *β* = 0.339), awareness on behavioral intention (*p* < 0.001, *β* = 0.051), perceived ease of use on behavioral intention (*p* < 0.001, *β* = 0.277), trust on behavioral intention (*p* < 0.001, *β* = 0.181), perceived usefulness on behavioral intention (*p* < 0.001, *β* = 0.056) and perceived self-efficacy on behavioral intention (*p* < 0.001, *β* = 0.032). Further, the results revealed significant (*p* < 0.001) and negative (*β* = -0.256) impact of perceived risk on behavioral

intention and social influence on behavioral intention ($p < 0.001$, $\beta = -0.275$). Thus, all the hypotheses of the study are supported (See Table 4 and Figure 3).



Note*:PU-Perceived usefulness, FC-Facilitating Conditions, PR-Perceived Risk, TR-Trust, SI-Social Influence, PEU-Perceived Ease of Use, R.A. - Relative Advantage, AW-Awareness, PSE- Perceived Self Efficacy, B.I.- Behavioral Intention.

Figure 3:
Structural Model

Discussion

A number of canny outcomes can be abridged from every hypothesis tested in this study. In the proposed model, nine "independent variables" and one "Dependent variable" were used to test the proposed hypotheses relationship. The subsequent section presents a comprehensive argument on these outcomes.

The study's findings exhibit a significant positive relationship between P.U. and users' intention to adopt mobile banking. In other words, users seem to be increasingly motivated to acknowledge when they perceive this advancement to be helpful. Perceived usefulness significantly contributes in explaining an individual's intention to adopt m-banking (Yen & Wu, 2016). As such higher the users perceive mobile banking as a proper banking channel, the higher will be their intention to use it (Changchit et al., 2017). Among the experiences that substantiate the comparative findings include Alalwan et al., 2015; Hanafizadeh et al., 2014; Ho et al., 2020; Malaquias & Silva, 2020; Mortimer et al., 2015; Shankar & Datta, 2018; Thakur & Srivastava, 2014.

Second, the present study finding affirms that "Perceived Ease of use" has a significant positive impact on the users' intention to adopt mobile banking. It infers that users seem to be increasingly driven to acknowledge m-banking if they recognize that such innovation's utilization was not troublesome and required less exertion. This finding can also be ascribed to the truth that a person adopts mobile banking when he finds it convenient in contrast with other customary techniques of performing fiscal exchanges (Shankar & Datta, 2018). The fallout of the present study are in sync with previous findings of Deb & Lomo-David, 2014; Malaquias & Silva, 2020; Shankar & Datta, 2018; Tam & Oliveira, 2017; Thakur & Srivastava, 2012; Zhou et al., 2010 yet negates with the findings of some earlier experiences (Al-jabri, 2015; Makanyeza, 2017; Koeing-Lewis et al., 2010).

Third, although Social Influence was proposed as a positive considerable forecaster of

intention in the preceding literature (Afshan & Sharif, 2015; Oliveira et al., 2016; Warsame & Ileri, 2018), the present outcome uncovers that Social influence poses a negative but statistically significant impact on adoption intention of the users. This fact can be ascribed to the fact that mobile banking users rely more on their possess opinions and convictions because users remain conservative due to the psychological and social risks arising from the social interplay since their valuable money is at stake. Besides, the users' do not depend extraordinarily on the referent opinions and know-how of the peer group with m-banking. One more reason could be that diverse sections of the society have distinctive feelings regarding Mobile banking (for example, one segment may see just innovative factors enough for accepting versatile banking while others won't). However, the earlier literature exhibits that "social influence" has no significant/negative impact on the users' adoption intention thereby, contradicting the current finding (Bhattacharjee, 2000; Jamshidi et al., 2018; Shankar & Datta, 2018)

Fourth, it was also found that Facilitating Conditions positively and significantly impact the users' intention to adopt mobile banking. It surmises that users will adopt mobile banking when they perceive that the bank possesses enough help administrations and assets. As such a user's impression of the support services and assets that a bank possesses are the critical elements for acknowledging this innovation. The previous findings validate these results in the literature (Afshan & Sharif, 2015; Ho et al., 2020; Oliveira et al., 2014; Shambare, 2013; Thusi & Maduku, 2020; Zhou et al., 2010). However, in contradiction to the findings of the present, the studies of Makanyeza, (2017), Deb & Lomo-David, (2014), Farah et al., (2018), and Thakur and Srivastava, (2012) have uncovered that Facilitating Conditions do not significantly impact the users mobile banking adoption intention.

Fifth, present findings affirm that Relative Advantage has a positive and significant impact on the users' intention to adopt mobile banking, suggesting that users will adopt mobile banking when they perceive something distinctive from traditional performing transactions. The possible explanation of this finding can be ascribed to the fact that users view offerings of m-banking as progressively useful compared to the standard methods of performing financial exchanges. Users who have progressively positive convictions about mobile banking's relative advantage form an extra favorable form of mind towards continuous usage of mobile banking (Lin, 2011). This outcome is in line with numerous past investigations supporting the positive assessment of relative advantage (Al-Jabri & Sohail, 2012; Cheah et al., 2011; Lin, 2011; Liu & Li, 2010; Makanyeza, 2017). However, the findings of the study of Cruz et al., (2010) are not supported in terms of the current results.

Sixth, trust also stands among the factors that impact users' adoption intention positively and significantly. This result can be ascribed to the verity that users trust in the services being rendered by the banks since a number of measures have been undertaken by the banks to safeguard the money as well as the privacy of the users'. It follows the suit that users' who view Mobile Banking embedded with all the quintessential protocols are more likely to grasp it while the others who don't aren't expected to receive the advancement. Better the level of trust among the users', higher will be their intention to adopt the Mobile Banking and same has been acknowledged by various past studies (Alalwan et al., 2017; Gu et al., 2009; Hanafizadeh et al., 2012; Jamshidi, 2018; Malaquias & Silva, 2020; Shankar & Datta, 2018; Zhou, 2011).

Seventh, the study's finding demonstrates that Perceived Self-Efficacy also significantly impacts the users' adoption intention of m-banking. This finding could be interpreted as an impression of the inclination that the m-banking users' are considerably embedded with the adequate skills and essential information required for handling this technology. The finding is in accordance with the previous studies (Gu et al., 2009; Ho et al., 2020; Makanyeza, 2017; Shankar & Datta, 2018).

Eighth, the findings exhibit that "Perceived Risk" has a negative but significant impact on users' intention to acknowledge mobile banking, which is in accordance with the results of the past investigations of Al-Jabri & Sohail, (2012) Koenig-Lewis et al., (2010), Makanyeza, (2017), Malaquias & Hwang, (2016) and Priya et al.,(2018). This outcome can be accredited to the actuality that users are increasingly worried and fear losing their money when performing

exchanges with mobile banking. Various electronic money-related violations have been accounted for by the mass media over the last three years. Additionally, they feel that their privacy is dependably in question while utilizing mobile banking. Hence, the more users perceive the risk, the less they intend to adopt or use mobile banking continuously.

5.1 Conclusion & implications for research and practice

The equanimity of mobile banking adoption is on the upward push after the nation experienced the wave of demonetization. The central government and the banking institutions since then have been encouraging more and more cashless transactions. As a result of which new online platforms are on the rise. In view that India being an emerging capabilities marketplace for M-banking, this investigation presents a comprehension of the user-driven variables influencing the adoption intention. The present study has attempted to test the relation of various variables empirically. Using Structural equation modeling, all the hypothesized relationships were endorsed. The results confirmed all the hypothesized relationships. The substantial impact on users' intention to acknowledge mobile banking was experienced from "perceived usefulness, perceived ease of use, social influence, facilitating conditions, relative advantage, perceived self-efficacy, trust, perceived risk, and awareness."

From a theoretical viewpoint, this investigation has made some imperative offerings by identifying the attributes of mobile banking intention in a developing market. The contribution of this research is multifold. 1st For researchers, the proposed model stretches a comprehensive methodology since it has incorporated builds of well-known theories. 2nd, this examination's outcomes will offer a course to the banking institutions regarding user needs. 3rd The current model adds to the existing literature on technology adoption from an emerging market perspective. 4th This study will persuade and prompt the banks to take critical consideration while implementing mobile banking, particularly in the northern part of India. 5th Applicability of the findings may be generally stretched to other technological sectors. 6th The outcomes of this investigation provide satisfactory proof to the banks to patch up their rehearses to upgrade mobile banking's general incursion.

From the administrative point of view, this study's outcome holds several ramifications for the upliftment of mobile banking services. The study's findings uncovered a significant positive relationship between P.U. and intention to adopt mobile banking among the users, which indicates that users will adopt this service when they perceive this headway to be helpful. For this reason, the banks should come up with some ingenious strategies that may build up a conviction among the users that this new framework is more valuable than the customary payment procedure. Second, PEU was found to significantly impact the users' intention to adopt mobile banking, which construes that users will acknowledge mobile banking only when they find it easy in terms of usage. For this rationale, the banks should have to think about the design of mobile banking apps. It ought to be developed according to the needs of the users and should be user-friendly. Third, it was also found that Facilitating Conditions positively and significantly impact the users' intention to adopt mobile banking. Considering this result, the banks should enlarge and highlight their support services and assets so that users keep on adopting mobile banking. Besides, the banks should attempt to reach the clients at regular intervals. Fourth, the Relative Advantage was accounted for positively and significantly impacting the users' intention to adopt mobile banking. The banks should add new highlights to the mobile banking apps so that the users feel that this progression is relatively more valuable than standard ways. Fifth, trust and perceived self-efficacy also stood among the factors that impact users' adoption intention in a positive and significant manner. It implies that users who believe that mobile banking is embedded with all the vital conventions will adopt mobile banking. Trust serves as the base of mobile banking. Banks should prioritize building trust among the users by providing hassle-free and quick exchange administrations at whatever point performed regardless of the time and spot to the users with support from the bank-side in terms of customer support. Sixth, awareness likewise stood among the factors that impact users' adoption intention in a positive and significant manner. It induces that users who have an appropriate understanding of mobile banking will continuously use mobile banking. For this purpose, the banks should

keep on instructing the users by way of texts or emails about the structure and advantages of mobile banking. To deal with risk and social influence, the bank should keep on attempting to enhance the security measures and safeguard the users' personal information. Moreover, they should try to spread word of mouth and increase referral promotion schemes in society.

5.2 Limitations / Future directions of the Study

The first and the main limitation of the study was that respondents were selected conveniently, which reduces the results' representativeness. Therefore, the probabilistic sampling method is recommended in future studies. Second, the proposed model included only nine independent constructs. Future investigations can mull over other imperative factors that would impact the users' adoption intention of mobile. Likewise, only the users of mobile banking were considered, while non-users were not considered. Moreover, the current study found that "Social Influence" has an unconstructive but significant impact on the usage of m-banking. This outcome does not conform to some of the investigations that have scrutinized this factor's significance on citizens worldwide' behavior. As such, investigators are aggravated to revise the indispensable role of "Social Influence" and the last being that the findings drawn from this investigation are based on cross-sectional data. Future studies should implement longitudinal studies.

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Impact of Trust, Service Quality, Satisfaction on Loyalty: Mediating Role of Image for The Relationship between Satisfaction and Loyalty in The Indian Hotel Industry

Impact of Trust, Service Quality, Satisfaction on Loyalty: Mediating Role of

91

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Abstract

Purpose: Failure is inevitable, and the hospitality business faces it more as the number of tourists continues to rise worldwide. The study aims to examine the impact of trust, satisfaction, and service quality on customer loyalty. In addition, this study endeavors to understand the mediating role of hotel image between customer satisfaction and loyalty.

Design/approach/Methodology : A structured questionnaire was distributed among 700 hotel customers who had the experience of staying in three, four, or five-star hotels. The PLS-SEM technique was used for data analysis and to study the relationship between constructs.

Findings: The study found the significant and positive influence of trust, satisfaction, and service quality on customer loyalty. The partial mediation effect of hotel image between satisfaction and loyalty was also established.

Practical implications : The hotel plays a crucial role in the tourism industry. Based on the previous studies, hotels should take appropriate action to improve customer satisfaction and customer loyalty. With continuous substantial annual changes in the tourist industry, hotels need to reevaluate their business tactics to maintain customer loyalty. Hence, hotels should provide better services to dissatisfied customers.

Originality: Because of the tough competition in the service industry, organizations focus more on service quality to secure long-term profitability. Organizations should continuously evaluate the business strategies to improve customer satisfaction and customer loyalty.

Keywords: Trust, Customer satisfaction, Hotel image, Customer loyalty, Service quality, Hotels.

1. Introduction

"Many millions of jobs and businesses depend on a vibrant and thriving tourist sector around the world. Tourism has also been a driving force in the preservation of natural and cultural assets for future generations to enjoy" Mr. Zurab Pololikashvili. The Indian hospitality and tourism industry has turned into an essential growth driver in India's services sector. Like many other countries, tourism is a significant source of foreign exchange in India. Foreign exchange earnings increased at a CAGR of 7% from 2016 to 2019 but fell in 2020 because of the COVID-19 epidemic (Indian tourism and hospitality industry report, 2021). COVID-19 brought the entire world to a halt. It wreaked havoc on the travel and tourism industry, resulting in a nearly US\$ 4.5 trillion GDP loss and 62 million job losses by 2020. Travel and tourism capital investment fell sharply from US\$ 986 billion in 2019, accounting for 4.4 percent of total global investment, to US\$ 693 billion in 2020, accounting



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for 3.2 percent of total investment, a drop of 29.7% (Wttc 2021). As the industry prepares for a rebound in international visitors and capital investment, it is critical to understand key trends, priorities, and related opportunities to attain the Travel & Tourism sector's unlimited potential in the years ahead. Achieving success will necessitate the involvement of all stakeholders from the early stages of the planning process, ranging from developers, investors, legislators, and policymakers to community groups (Wttc, 2021). As places and government agencies work to encourage investment, they will also need to build an effective supportive environment and consider overarching incentive schemes such as intelligent taxation, transportation facilitation practices, diversification, advancement, and the use of digital technology, as well as the integration of sanitation and safety protocols, communication skills, and the significance of a mutually beneficial relationship. Service failure and recovery are essential in marketing. Glasly 2018 customer service expectations survey states that 92% of customers said they would not repurchase the services if the double deviation system happens, and 26 % will not repurchase the benefits if the failure first occurs. According to the survey, 68 percent of people would pay a higher price for an excellent service company. Thirty-three percent would pay an additional 1-9 percent. 27% would pay another ten to twenty percent (Glasly, 2018). In addition, if the service were excellent, 8% would be willing to pay more than 20% more. These significant beneficiaries in the hospitality industry must remain creative and cautious about standing out among the growing rivals. As customers' expectations increase, hotel companies have to become more attentive when interacting with their tourists to stay competitive in the hospitality sector. Hotel owners need to persist in integrating new important aspects into their operations. Hotel companies should always assume that different guests would have different levels of service expectations. (Glasly, 2018).

Moreover, instead of putting too much emphasis on additional services, hotels must first meet the primary demand of consumers (Mansori et. al., 2014). Listening to customers' complaints is one of the most acceptable ways to boost relationships with customers. Now a day's, service recovery is an essential aspect of every organization. Subsequently, service recovery has drawn the attention of every researcher and academician. This concept has been seen in marketing studies and business practices. Service failure is the nature of the products that organizations provide to their customers, leading to increases in the possibilities of defeat (Hoffman and Suhartanto, 1995). (Liat et. al., 2018) studies the relationship between services recovery, customer satisfaction, and loyalty. The study found a positive relationship between service recovery, satisfaction, and loyalty. Therefore, in this study, we discussed the variables not described in any study.

Moreover, the study explains the conceptual model made by taking the variables from previous studies. The research shows the main contributions to the (services) marketing and hospitality literature. Based on this justification, this paper has gone through a brief theoretical foundation, development of the hypothesis, and the proposed framework, which contains essential term definitions and formulation of past studies. The study discussed the results followed by research methodologies. The study provides theoretical/managerial implications and future outcomes based on the current study's limitations.

2. Literature review

A literature review was conducted to expand the current understanding of the relationship between trust, satisfaction, service quality, and its impact on loyalty and mediates the hotel image for the relationship between satisfaction and loyalty. The following section examines the literature on customer satisfaction.

2.1 Tourist Satisfaction

Customer satisfaction has always been an exciting area of research because customer reactions ascertain the long-term relationship with customers that can ultimately lead to a business's long-term viability. (Anderson et al., 2004). With the widespread availability of services, monopolistic service provisions, in which consumers have little or no say over

their purchases, are becoming increasingly rare. Many studies have tried to describe satisfaction, although; it can be broadly defined as "the consumer's response to the evaluation of the perceived discrepancy between expectation and actual quality of the service as perceived after consumption" by many researchers. (Giese and Cote, 2000) there are three components of satisfaction: an emotional response, a response that defines clear focus, and a response regulated by confined time. This understanding is further expanded in recent service marketing literature (Mohajerani and Miremadi, 2012) found that customer satisfaction is represented as a composite of perceived image, service quality, and perceived value. Customers are tourists, and their role is to use and enjoy the products or services purchased. Subsequently, Customer satisfaction and loyalty are critical to the market concept's implementation success. Satisfied tourists always return and rebuy if the service provider meets or improves their expectations (Hsiung, 2011). The study tries to address satisfaction, failure, and recovery of services. Customer satisfaction is the most important factor in the hospitality and tourism industry. In addition, due to the different characteristics of services, failures are bound to happen. To counter that, precise planning must be done (Mostert et. al., 2009). The study reveals that organizations' efforts of service recovery have a significant impact on customer satisfaction. Once a customer receives a satisfying customer service experience, a strong bond is being created, generally lasting long. Companies have spent a lot of money to increase customer satisfaction (Durvasula et. al., 2004). Customer satisfaction is an indicator of an organization's overall health and prospects and has many benefits for organizations, such as establishing consumer loyalty, limiting customer churn, lowering marketing expenses, and increasing brand reputation (Fornell, 1992). The company's strategy's performance is determined by its ability to meet its commitments to customers, leading to long-term, productive relations (Carpenter and Fairhurst, 2005). Managers must distinguish between satisfying and dissatisfying product qualities. Satisfaction is defined as an independent variable, which shows a relationship between customer satisfaction and loyalty.

2.2 Customer satisfaction and customer loyalty

Loyalty is a multifaceted concept that different scholars define and evaluate differently. Consumer loyalty can be divided into three categories: behavioral loyalty, attitudinal loyalty, and composite loyalty (Taylor et. al., 2006). These variables influence consumer expectations, contentment, and repurchase behavior (Curtis et. al., 2009). Some organizations charge high switching fees to promote loyalty, which thwarts switching intentions (Lee and Romaniuk, 2009). These expenses have a detrimental impact on the customer's relationship with the supplier. The literature review of the satisfaction-loyalty link revealed two essential points. The first point of view found that customer satisfaction is the most critical factor in customer loyalty (Dixon et. al., 2005). The second point of view on the satisfaction-loyalty link is that, while customer satisfaction can affect consumer loyalty, it is not enough to establish loyalty (Julander and Soderlund, 2003; Oliver, 1999). Customer satisfaction is well established in the literature as one of the specifications for building consumer loyalty. Companies must be capable of handling and adequately resolving problems to maintain this relationship (Morgan and Hunt, 1994). Satisfaction is a person's sensation of pleasure or disappointment that emerges from comparing product performance expectations with actual performance, implying that if the execution falls short of expectations, the consumer will be dissatisfied. (Giao et. al., 2020). Additionally, customers define customer satisfaction as the evaluations of goods or services they have already bought (Nguyen et. al., 2020). Previous studies indicated that customer loyalty is induced by effective service recovery (Komunda and Osarenkhoe, 2012). They also mentioned an idea known as loyalty, which refers to a customer's repurchasing behavior. On the other hand, many research studies have only looked at repurchasing behavior without considering the attitude factor. (Jin et. al. 2019) Customer satisfaction is an important quality of every successful business. Providing the customer with positive service encounters is necessary, but every business needs to satisfy the dissatisfied customer. Over the years, customer satisfaction was increased in the hospitality industry. Therefore,

service failure is a significant problem in the hotel industry because employees do not react to customer complaints. The gap between customer expectation and customer experiences is called service failure. The study's objective is to examine the types of service recovery strategies and service recovery times. The study has done an online survey of 495 respondents. Factorial ANOVA exploratory factor analysis techniques were used for data analysis. As a result, it is possible to speculate that:
H1. Customer satisfaction positively affects customer loyalty for the hotel.

2.3 Hotel Image, Customer Satisfaction, Customer loyalty

Satisfaction is essential, but this is not the first-factor motivating people to stay loyal. Customer loyalty is influenced by corporate image and satisfaction, according to (Faullant et. al., 2008). Customers' perceptions of the company can be viewed as corporate image. It could be the company's brand and its products and services. (Dibb & Fisk, 2005). Hotel image refers to how a consumer perceives a hotel's identity in the hospitality industry. Past research indicated a positive relationship between hotel image and loyalty, and image leads to loyalty (Faullant et. al., 2008). Many studies have been conducted to investigate the impact of corporate image on customer perceptions and behavior. (Faullant et. al., 2008) found that hotel image and satisfaction are essential factors in encouraging customer loyalty (Liat et. al., 2017). The image of a company has a significant impact on marketing actions, both favorably and adversely. Therefore, the image has an impact on the consumer decision process. Service literature identifies various aspects that reflect image in the customer's mind. Corporate image is defined as the images and impressions of the hotels you have visited, and you feel about the same (Zameer et. al., 2018). A set of beliefs, ideas, and one's impression of a corporation can be considered a corporate image (Kissel & Buttgen, 2015). Examples of the good corporate image defined are good responses in involvement, active roles, and other positive acts, and negative responses in rejection or other negative forms of a corporation (Sallam, 2016). Subsequently, the corporate image has an essential role in the mind of the customers. (Kissel & Buttgen, 2015). With a great level of competition in the industry, services have become a significant factor. The recovery strategies were applied to determine the customer's satisfaction level and loyalty. Thus, these factors are significant for hotels to maintain their name in the market. In the study, responses are collected from unsatisfied customers. It was done to understand the customer's satisfaction after recovery and to know the loyalty of the customers. It also tries to depict the image of the hotel. Loyalty is one of the major theories for making a customer relationship. Now a day, every brand has a different characteristic. The overview of the study is to check the strength and depth of the connection between consumers and brands. The study's objective is to examine the applicability of brand relationship quality in the hotel industry. The results showed that service recovery plays a vital role in satisfying the customer, creating loyalty, and improving the corporate image.

H2. Hotel image mediates the relationship between customer satisfaction and loyalty.

2.4 Service Quality and loyalty

The SERVQUAL model has been proposed to measure service performance based on research. SERVQUAL is a tool for evaluating the level of services delivered by businesses. This model has a lot of criticism. However, still widely used in the field of service marketing. In the literature, relationships between customer satisfaction and service quality are well accepted. (Duygun, 2015; Gautam, 2013; Parasuraman et. al., 1988). Customer satisfaction is achieved when hotel service quality is managed by ensuring that actual service performance matches the customer's perceived services. Service quality is represented at every stage of the service interaction from the standpoint of services marketing, and it is service attainment. Put another way, it measures how well a hotel service fulfills a customer's aspirations (Cheng et. al., 2019). Service failures are unavoidable in the service industry. In any case, the hotelier is responsible for any service interruptions. The hotel's strategies should include appropriate measures concerning a service failure to stay competitive. According to (Michel et. al., 2009), such a response may increase customer satisfaction or decrease customer

disappointment.
H3. Service quality positively affects loyalty.

2.5 Trust and loyalty

Trust is regarded as a critical component in relationships between individuals and organizations (Prieto et. al., 2014). Whenever you visit the hotel, what is the first thing that comes to your mind? Is the hotel trustworthy or not. Therefore, loyalty is defined as the reflection of trust and commitment. Customer loyalty positively affects organizations' growth (Khoa, 2020). Nowadays, worldwide everyone wants the best products and services. Customer loyalty maintains a relationship with the organizations. Trust has been discussed in various disciplines and has been incorporated in multiple ways. Many others have discussed trust in services marketing (Parasuraman et. al., 1991). (Moorman et al., 1993) define trust as "the eagerness to rely on an exchange partner in whom one has trust." Most studies have looked at trust as a one-dimensional concept (Dwyer et. al., 1987). However, some researchers (Doney & Cannon, 1997) argue that trust should be viewed as a multidimensional concept. Several academics who study long-term relationships and, as a result, repeat buying behavior have stated that trust is an essential factor in maintaining customer loyalty during difficult times (Doney & Canon, 1997). (Singh and Sirdeshmukh, 2000) propose a model in which customer loyalty is positively influenced by post-purchase satisfaction and trust. Establishing existing business relationships appears to require a high level of trust. Given the intangible nature of service and the fact that it is consumed right after purchase, it can be argued that a greater degree of trust in the product and supplier is needed to promote acquisition. (Lewis & McCann, 2004) the hospitality industry interacts with employees and consumers. The quality of the degree is determined by the actions of frontline staff whose experience is minimal. This paper is focused on the service failure and recovery experienced by a hotel guest. In all statements, the major problem was regarding the room cleanliness, followed by staff not being helpful, locks quality, food quality incorrect bills. An Independent sample t-test has been used to analyze the data. The study found that 57 percent said they would stay at the hotel again, and half of the guests who were dissatisfied with problem resolution did not intend to return to the hotel. This research suggests that loyalty is influenced positively.

H4: Trust has a positive influence on loyalty.

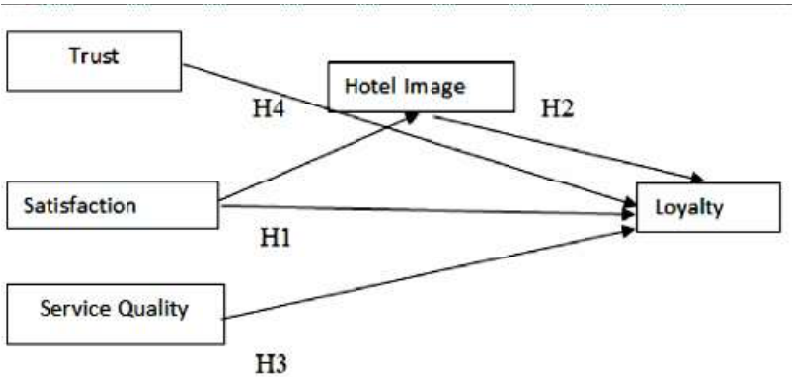


Figure 1:
Conceptual model

3. Research Methodology

In this study, we chose the hospitality sector. There were many reasons for this consideration. First, in the last two years, covid-19 affected the hospitality industry worldwide as we are all stuck at home in the meantime and were not able to get the services from these industries. Now the hospitality sector has been open all over the world. Therefore, this study focuses on what changes customers are facing at this time after the covid-19. Nowadays, the Indian tourism industry has been overgrowing. A structured questionnaire was distributed to 700 tourists who have visited the hotels in the last few months in the present study. We have taken the sample from three-star, four-star, five-star hotels of Haryana, Punjab, Himachal

Pradesh, and New Delhi for our research. Data were collected by using the convenience-sampling method.

The researcher approached the respondents in hotels. Two criteria were used to choose the responses. First, they stayed in the respective hotels within the last two months and had an experience of service failure. After getting approval from the respondents, the participants were given a brief explanation of the survey, and a questionnaire was distributed to them. Confidentiality is given to the participants who filled the questionnaire. A questionnaire was distributed among the respondents for the data collection. Out of the (n=700), 469 was usable for further analysis. The remainder were rejected due to the incomplete information provided by the respondents. For the measurement, items for various variables were adopted from the different studies. The service quality items were taken from previous studies. Moreover, the satisfaction items were taken from the developed (Kuo et al., 2013). Moreover, all other things were measured using a 5-point Likert scale, from 1=Strongly Disagree to 5=Strongly Agree. Data have been analyzed by using smart pls3.3.3 software.

4. Data Analysis

4.1 Sample Characteristics

With descriptive statistics, the demographic profile of the respondents in this study Females made up 53.1 percent of the respondents in this study. In terms of age, the bulk of the respondent was 18-24. Furthermore, the majority of the respondents (80.4%) were single. As far as a profession was concerned, we have taken the sample of govt sector employees (14.5%), private sector employees (15.8%), self-employed (5.6%), and students. Most of the respondents are students in this study (64.1%). Further, we have taken the type of family, the number of family members, and frequency of visits in a month in the selected hotels, and the purpose of staying in the respective hotels.

Validity and Reliability

Table 1.
Measurement Model

Construct	Dijkstra Henseler's rho (ρ_A)	Jöreskog's rho (ρ_c)	Cronbach's alpha(α)	The average variance extracted (AVE)
sat	0.8902	0.9173	0.8869	0.6896
trust	0.9004	0.9259	0.8935	0.7576
loyalty	0.9226	0.9450	0.9224	0.8112

The applicability of the created measurement for this was tested using validity and reliability analyses. For each of the study's constructs, the average variance extracted (AVE), composite reliability (CR), and Cronbach's alpha were calculated, and to prove convergent validity, the recommended threshold values are (a) factor loading for the item more than 0.70, (b) AVE more than 0.50 (c) the reliability score more than 0.70. the results reveal that all measuring item loadings were more outstanding than 0.60, the AVE for all constructs was more significant than 0.50, and the reliability score for all constructs was more critical than 0.70, indicating that convergent validity was obtained.

4.3 Structural Model and Hypothesis Testing

Table 2.
Standard bootstrap results

Effect	Original coefficient	Mean value	Standard error	t-value	p-value (2- sided)	p-value (1 sided)
sat -> loyalty	0.2354	0.2290	0.0810	2.9051	0.0038	0.0019
trust -> loyalty	0.2401	0.2435	0.0784	3.0642	0.0022	0.0011
Quality->loyalty	0.2278	0.2321	0.0625	3.6476	0.0003	0.0001

Table 2 demonstrates based on the estimates of the standardized coefficients; each construct was positive and significant, trust and quality, satisfaction and quality, quality and loyalty were effective. The results found that appropriate confidence and customer satisfaction positively affect customer loyalty. Therefore, results found that the corporate image partially mediates the relationship between customer satisfaction and customer loyalty.

5. Discussion and conclusion of the study

Constructs	The direct effect of sat on loyalty in the absence of image	The indirect impact of sat on belief in the presence of image	An immediate impact of sat on loyalty in the company of image	Inference
Sat -> loyalty	0.2354*	0.0943*	0.2231*	Partial Mediation

Table 3.

The study found that the result is worth noting. First, the study found that trust and service quality positively influence customer satisfaction in the respective states of the Indian hospitality sector. Previous studies supported that hotel guests' views of overall service recovery and service quality positively affect their satisfaction. Subsequently, service recovery actions influence customer satisfaction who has encountered service failure during their stay, just as service performance quality substantially affects a customer's judgment or perception. The hospitality sector is especially susceptible to customer dissatisfaction and perceptions of service quality because of the high frequency of engagement (Sweeney & Soutar, 2001). Skilled individuals in the hotel industry should ensure that smooth customer service policies and practices are carried out. Hotels, for example, should consider renovating their exteriors and interiors to make an excellent first impression on their guests. In addition, updating amenities such as websites, booking systems, and room facilities, among others, can significantly affect how customers perceive the hotel. Hotel companies should highlight the importance of the assurance factor by assuring that their customers' safety is secured. This can be accomplished by providing security officers with sufficient training, reviewing key card access, controlling after-hours access, and maintaining security-conscious customer service. Hoteliers should provide training and courses to help staff improve their work performance and the service delivery process in terms of responsiveness, reliability, and empathy. Nowadays, attracting new customers is 15 times more costly than sustaining the previous one. The hotel industry should follow all approaches to attract customers and provide customer satisfaction. For instance, several hotels should encourage feedback or suggestion programs, as this strategy can help them uncover any problem spots in their operations that need improvement. This is done with the help of survey forms, which can be handed out at the front desk or sent through email. In addition to recruiting new customers, effective techniques would assist convert customer satisfaction into customer loyalty. (Faullant et. al., 2008) indicated that image and satisfaction lead to loyalty intentions. The study administered that hotel image partially mediated the relationship between these two variables concerning the mediating effect. (Kandampully and Suhartanto, 2000). Customer loyalty leads to a positive customer image. The organizations provide high service quality with delighted customers, leading to a positive corporate image. Therefore, such an organization would benefit from the patronage of loyal consumers and their friends, who would become new customers due to word of mouth. The long-term marketing strategy should include actions to strengthen the hotel's corporate image. To ensure customer service justice, hotel owners should emphasize the necessity of service recovery. For example, management could provide remedial service recovery by providing consumers with a free hotel up-gradation or a free meal coupon. In the hospitality industry, the Indian hospitality industry plays pivotal roles all over the country. The study found a positive impact between these variables and partial mediation between customer satisfaction and customer loyalty. In summary, the study found a positive effect of trust, satisfaction, and service quality on loyalty and partially mediated the role of image in relation to satisfaction and loyalty. It is

critical for the hotel sector to continuously enhance and deliver high-quality facilities and services to make consumers as satisfied as possible in every service encounter, resulting in customer loyalty.

6. Limitations and future Implications

This model is tested in the Indian hotel industry. As a result, the findings may or may not be applicable in a different sector. Second, the questionnaire only included closed-ended questions. Furthermore, future studies should include another method to provide more credible findings. The study investigated the effects of trust, satisfaction, and service quality on customer loyalty and mediating the role of image in the relationship between happiness and loyalty. The findings will be helpful to hoteliers that want to improve their corporate appearance to develop more effective loyalty campaigns. The study has several practical directions for future research. Concerning the previous analysis, trust, quality, and satisfaction induce customer loyalty. The research found that the hotel managers know that trust, quality, and satisfaction have a positive role in creating hotel image. There are some flaws of the study, and these limitations give insights for future research; the research only focuses on one industry as it affects to generalize the result. Future research should also test this contextual framework in the other sector. Future research is recommended to measure the relationship between perception of feedback, trust, and loyalty.

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The Role of Foreign Direct Investment In The Relationship Between Global Innovation Index and Gross Domestic Product

Impact of Trust, Service
quality, satisfaction on
loyalty: Mediating role of

101

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Abstract

Purpose: In today's world; where technology, capital and workforce are in a rapid flow across borders; quantitative indicators, that provide insight into the economic and innovative performance of countries, are of key importance for decision makers. One of these indicators is Foreign Direct Investment (FDI); which is not only a mechanism that drives competition and economic development, but is also an international capital flow. This paper investigates whether FDI has a mediator role in the relationship between Global Innovation Index (GII) and Gross Domestic Product (GDP).

Design/Methodology/Approach: The mediator variable analysis was conducted based on the secondary data of FDI, GII and GDP of 43 countries which has been obtained from the World Bank between 2014 and 2018.

Findings: As a result of the analysis, all hypotheses were accepted. Consequently, a positive and significant relationship was found between the Global Innovation Index (GII) and Gross Domestic Product (GDP), and it was found statistically significant that Foreign Direct Investment (FDI) has a mediator role in this relationship.

Originality: In the literature, there is not any research that explains the role of FDI in the relation between Global Innovation Index (GII) and Gross Domestic Product (GDP). In order to address the gap, this study investigates whether FDI has a mediator role in the relationship between GII and GDP.

Keywords: Foreign Direct Investment, Global Innovation Index, Gross Domestic Product.

1. Introduction

With the increase in international economic activity during recent years, Foreign Direct Investment (FDI) has also surged. FDI is a form of cross-border investment in which a company or an individual in a country possesses the control or significant authority over a company in another country by establishing a wholly owned subsidiary, acquisition of a local organization or establishing a joint venture (Civelek et al., 2016). The primary difference between foreign direct investment and foreign indirect investment is that foreign indirect investment includes portfolio investments made through the purchase of stocks and bonds and it does not have any control over the place of investment (Wang and Li, 2018)

The contribution of FDI to competition, economic development, transfer of practice and economic growth has been shown in previous studies (Pelinescu and Radulescu, 2009; Pece et al., 2015; Klein et al., 2001; Balasubramanyam et al., 1999). Annual FDI values on country basis are available from the World Bank database.

Gross Domestic Product (GDP), which is another important indicator for decision makers in a country, is a numerical metric that provides information about the general state of the countries' economies. GDP, which is defined as the monetary value of all final goods and



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services produced within the borders of a particular country in a certain period, is calculated by an official national institution in each country (Uca et al., 2019). The GDP values of the countries are also accessible through World Bank's website and new GDP statistics are released each month (U.S. Bureau of Economic Analysis, 2021).

Innovation, which is suggested as the driving force of economic development by Schumpeter, is another important variable for national economies. As a matter of fact, it is discussed that the economic crises in the past paved the way for innovative companies which led countries to new growth paths. Innovation has also been found to have a positive impact on GDP (Despotovic et al., 2016). Adak's (2015) study emphasized the impact of technological innovation on economic growth. Indeed, in the globalizing world, the differences between countries in technology and innovation explain the differences in economic growth between countries (Mohamed et al., 2021). Likewise, Maradan et al. (2017) found that technological innovation is one of the most essential determinants of economic growth. For this reason, many countries place innovation at the center of their growth strategies (Dutta, 2012). The innovation activities of countries are measured in different ways. One of these methods of measurement is the Global Innovation Index, which ranks countries' innovation potential on a global scale and provides a benchmark among them. The Global Innovation Index (GII), which ranks countries in terms of their innovation performance each year, was developed in 2007 by INSEAD Business School, Cornell University and the World Intellectual Property Organization (WIPO) (Rajput et al., 2012; Crespo and Crespo, 2016).

In literature, there are various studies expressing the direct relationship between the innovative activities of countries and their GDP, which is a quite expected situation (Vukoszavlyev, 2019; Hasan and Tucci, 2010). However, besides the direct impact of being innovative on GDP, the role of foreign direct investment in GDP should be also discussed. In a previous study, it was seen that a unit increase in FDI would cause an increase of 1.23 units in GDP (Sargsyan, 2019). Similarly, Suliswanto and Kaluge, (2010) found that FDI has a positive and significant effect on GDP. Likewise, Andrade and Qing, (2015) have also demonstrated the positive association between foreign direct investment and economic growth (Andrade and Qing, 2015). Moreover, for Southeast Asian countries Richardson (1997), emphasized the considerable role of FDI in prompting economic growth. Furthermore, according to Giu-Diby's (2014) study on 50 African countries, FDI has been found to have a significant effect on economic growth. Similarly, Habibi's (2017) study showed that FDI affects economic growth. Due to the conspicuous benefits of foreign direct investment to the national economy, developing countries adopt various policies that facilitate FDI flow, such as investment incentives and facilitating foreign trade procedures (Mohamed et al., 2021).

As well as its impact on GDP, foreign direct investment certainly brings innovations in business functions such as production, marketing, R&D, innovation, finance, supply chain through technology transfer (Makki and Somwaru, 2004; Jiang et al., 2021). The crucial role of FDI in technology transfer and economic growth suggests that it should be considered as a critical variable to be included in this research. Therefore, when examining the relationship between innovation and GDP, it is essential to scrutinize the role of FDI in this relationship. However, when the literature is reviewed, it is seen that there is a lack of study explaining the role of FDI in the relationship between GII and GDP. Furthermore, regardless of the expected role of FDI, there is no study investigating the relationships between FDI, GII and GDP together. Although there are studies in the literature suggesting a direct relationship between innovative activities of countries and GDP figures, the mediator role of FDI in this relationship has not been demonstrated (Vukoszavlyev, 2019; Hasan and Tucci, 2010; Despotovic et al., 2016). Therefore, when examining the relationship between the global innovation activities of countries and GDP figures, it is indispensable to analyze the role of FDI in this relationship. Considering this gap in the literature, it is anticipated that this study will contribute to the existing research by investigating the role of FDI in the relationship between the Global Innovation Index and GDP, thus inspiring future research in this area.

The endogenous growth theory and neoclassical growth theory forms the theoretical basis for this paper. The endogenous growth theory postulates that innovation and technological

progress are considered as major determinants of economic growth. Moreover, the neoclassical growth theory proposes that foreign investment through multinational companies increases wealth in host nations and this situation enables the realization of growth much faster than domestic savings (Mohamed et al., 2021).

The remainder of this paper is structured into six sections. Firstly; the conceptual framework, which is related to each of the variables discussed in the research, is provided. Then, the research design and method is described. In the conclusion part, findings are interpreted according to other results in the literature. In the final section limitations and future research possibilities are discussed.

2. Conceptual Background

2.1. Global Innovation Index

Prior research has developed various indices to compare countries' positions on innovation policies and performance, and to evaluate the effectiveness of government interventions. Analysis of these indices' rankings helps countries to create future development and innovation policy (Crespo and Crespo, 2016). The first generation of innovation measures falls in the 1950s and mid-1960s period and is based on input indicators. On the other hand, the second generation of measurements (1970s and 1980s) focused on innovation outcomes. The third generation of measurements consists of very large indices, and such measurements combine measurements of different input and output columns of innovation (Donoso, 2017). Since the late 1990s, the most comprehensive approach in comparing the performance of different innovation systems has been indices and rankings (Menna et al., 2019).

The Global Innovation Index (GII) ranks countries in terms of their enabling atmospheres and innovation outputs (Rajput et al., 2012). The GII was developed in 2007 by the INSEAD School of Business, Cornell University, and the World Intellectual Property Organization (WIPO) to assess innovation potential in national and socio-economic systems and to support policies and practices that promote innovation (Crespo and Crespo, 2016). This index, which provides a valuable benchmarking opportunity, allows continuous evaluation of innovation factors (Rajput et al., 2012). Published annually since 2007, the GII presents the annual scores and rankings of countries (Cui et al., 2020). The GII not only emphasizes measuring innovation inputs and outputs, but also measuring the connection between innovation and growth and development (Dutta, 2012). Therefore, GII reports are valuable data sets to compare innovation efficiency at both national and international levels and to identify innovation trends (Jankowska et al., 2017). Moreover, GII plays a notable role on the development policies of countries by enabling the measurement of the difference in innovation ability of the countries (Cui et al., 2020). The global innovation index is based on two sub-indices; namely the innovation input sub-index and the innovation output sub-index (Dutta, 2012). These sub-indices are also built on a number of columns which are based on five key concepts: institutions, human capital and research, infrastructure, market complexity, and business complexity (Dogan, 2016; Crespo and Crespo, 2016).

2.2. Gross Domestic Product

Gross domestic product (GDP) is one of the quantitative indicators of the general condition and size of a country's economy. GDP was invented in the 1930s to help America recover from the Great Depression and was first defined in 1934 (Fioramonti, 2013). It is characterized as the monetary value of all final goods and services produced within a specific country's borders during a given period (Uca et al., 2019). Decision makers, economists and investors use this indicator to predict and interpret the state of the economy (Brezina, 2011). Gross domestic product, which is a complex indicator calculated at the macroeconomic level, can be used to make international comparisons and also provide valuable insight on the quality of life in a country (Anghelache et al., 2020).

2.3. Foreign Direct Investment

Foreign direct investment; which has an impact on production, economic growth, balance of payments, income, imports and exports; is one of the important premises of globalization

(Erdal and Tatoglu, 2002). Foreign direct investment is depicted as a form of cross-border capital flow (Lipsey, 2004). In other words, foreign investments can be explained as the transition of investments made by real persons or legal entities from one country to another country or countries (Yücel et al., 2019). Owning 10% or more of ordinary shares with a voting right is a criterion for proving the existence of a foreign direct investment relationship (Civelek et al., 2016). Furthermore, it is a mechanism that activates both domestic and international competition (Çelebi et al., 2015). In addition, foreign direct investment is a crucial tool for the transfer and adoption of best practices that are considered as keys for economic development (Klein et al., 2001). It has been observed that the increase in foreign direct investment inflow reduces the unemployment rate and boosts the desire to participate in employment (Basem-Hassan Lomabridi et al., 2012). A number of factors in the existing literature, which are found to have an impact on FDI, might be defined as market-related factors such as the size of the market, cost factors such as inflation and labour cost, and the investment climate which is considered to be dependent on political stability (Schneider and Frey, 1985). Despite the important contributions of past studies, the main determinants of FDI are still obscure (Schneider and Frey, 1985). Among the factors behind foreign direct investments; the search for resources, market, efficiency and strategic assets are prominent. A reliable and consistent economy along with the power of financial markets can be listed as some of the fundamental components that make countries attractive for foreign investments (Yücel et al., 2019). While in 1970s, most host governments and some economists thought that multinational investments would harm host economies and local competition, this idea was replaced by a more optimistic point of view in 1990s (Markusen and Venables, 1999). One of the most prevailing topics about foreign direct investment in the literature is its contribution to economic growth through technology transfer and skill diffusion (Balasubramanyam et al., 1999). Attraction of studying FDI is increasing as FDI is seen as a tool for technological progress and for the diffusion of improved production techniques (Bénassy Quere et al., 2007). With the World Bank's announcement of this data, studies conducted on this topic began to accelerate. Foreign direct investment data is announced in the World Bank database annually.

3. Research Model And Development Of Hypotheses

The initial research model suggests that Foreign Direct Investment plays mediator role in the relationship between Global Innovation Index and Gross Domestic Product as shown in Figure 1.

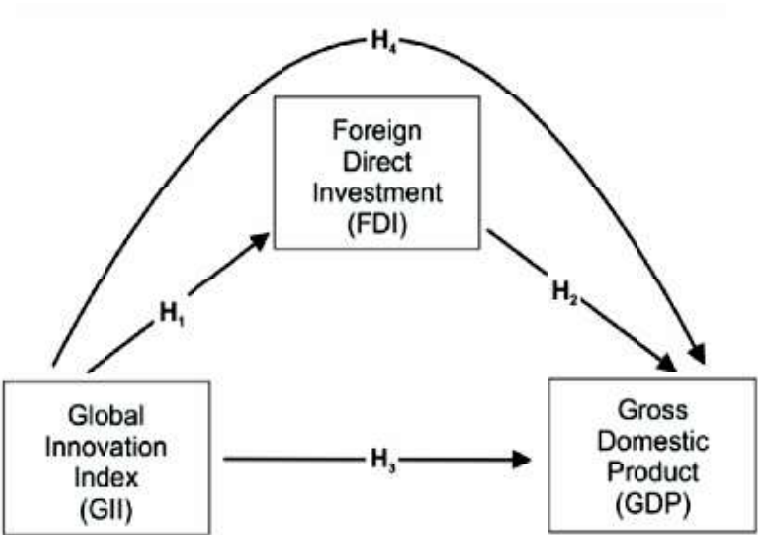


Figure 1:
Initial Research Model

3.1. *The Relationship between Global Innovation Index and Foreign Direct Investment*

Innovation is important for the development of a country. Indeed, FDI is the main channel for the transfer of advanced technology (Makki and Somwaru, 2004). The contribution of FDI to the country's competitiveness, economic growth and development, and transfer of practice has frequently been emphasized in past studies (Makki and Somwaru, 2004; Hlavacek and Bal-Domanska, 2016; Pece, Simona, and Salisteanu, 2015; Jiang et al., 2021). According to a previous analysis, it has been found that technology absorption and innovation capacity increases FDI (Kayalvizhi and Thenmozhi, 2018). Yet; in the current literature, there is no study highlighting the relationship between GII and FDI. To fill this gap, the hypothesis created under the guidance of previous studies is as follows:
H1: Global innovation has a positive effect on foreign direct investment.

3.2. *The Relationship between Foreign Direct Investment and Gross Domestic Product*

FDI has momentous impact on economic growth and export potential of countries (Pelinescu and Radulescu, 2009). Various studies have previously demonstrated the positive effect of FDI on economic growth (Sothan, 2017; Kalai and Zghidi, 2019; Zeng and Zhou, 2021; Sinha et al., 2020; Sangwan, 2015). Studies conducted in Pakistan and India, illustrated a positive relationship between FDI and GDP. (Nosheen, 2013; Ray, 2012; Mehra, 2013). Economic growth has been observed to increase in countries where FDI and trade have flourished (Makki and Somwaru, 2004). In addition, FDI has been identified as one of the principal factors driving economic growth in Africa (Zekarias, 2016). Likewise, a study in Central and Eastern Europe found that between 2000 and 2012, the growth in FDI also led to an increase in GDP (Hlavacek and Bal-Domanska, 2016). In this region, FDI has been discovered to be the main determinant of external economic confidence in the development and coherence of the economy (Hlavacek and Bal-Domanska, 2016). In this regard, inspired by the current research, the hypothesis we developed is as follows:
H2: Foreign direct investment has a positive effect on gross domestic product.

3.3. *The Relationship between Global Innovation Index and Gross Domestic Product*

The national innovation system has an eminent role in facilitating innovation activities and economic growth (Crespo and Crespo, 2016). Also, previous literature has emphasized the impact of innovation on economic growth (Menna et al., 2019). Another previous research demonstrated a correlation between the innovation performance of a national economy and GDP (Vukoszavlyev, 2019). Moreover, in a study conducted by using global patent data, it was concluded that countries with higher quality patents had higher economic growth (Hasan and Tucci, 2010). Various prior studies have also revealed that economic growth and innovation are positively related (Pece et al., 2015). Research by Rajput et al., (2012) underlined the reciprocal relationship between GDP and GII. Accordingly, the hypothesis we developed with support from previous studies is as follows:
H3: Global innovativeness has a positive effect on gross domestic product.

3.4. *The Role of Foreign Direct Investment in the Relationship between Global Innovation Index and Gross Domestic Product*

Foreign direct investment plays a pivotal role in economic growth through knowledge transfer and the development of technological processes (Pece, et al., 2015). Past studies indicate that GDP and FDI are among the main factors driving innovation (Svagzdiene and Kuklyte, 2016). Based on the noteworthy relationship between innovation and economic growth which is highlighted in the existing literature, we argue that the relationship between the Global Innovation Index and the Gross Domestic Product is mediated through foreign direct investment. Therefore, the hypothesis we developed in the light of previous studies is as follows:
H4: Foreign direct investment plays mediator role in the relation between global innovation and gross domestic product.

4. Research Methodology

This is a cross-sectional quantitative study. The analysis was conducted in SPSS statistics program. The mediator variable analysis was conducted by using the Baron and Kenny methodology (Baron and Kenny, 1986). According to Baron and Kenny; if the following requirements are fulfilled, the variable performs a mediator position (Baron and Kenny, 1986): Change in the independent variable results with a change in the mediator variable, change in the mediator variable results with a change in the dependent variable and If the mediator and the independent variables are incorporated in the assessment, the impact of independent variable on the dependent variable reduces or disappears completely.

4.1. Measures and Sampling

The sample of the study consists of 5-year (2014, 2015, 2016, 2017, 2018) data of 43 countries. The data is secondary and includes Foreign Direct Investment, Global Innovation Index, and Gross Domestic Product. The scope of the study is 43 countries; whose data is not missing in the years mentioned above. The data was taken from the World Bank.

4.2. Test of Hypotheses

The mediator analyses were performed according to the method suggested by Baron and Kenny (Baron and Kenny, 1986). As a prerequisite of this method, correlation values among the variables should be significant (Baron and Kenny, 1986). Correlations among the variables were found as significant. In the Table 2, correlation values are indicated. Hypotheses were tested in 3 models below:

Model 1: $GDP = \beta_0 + \beta_1.GII + \epsilon$ (used for testing H3)

Model 2: $FDI = \beta_0 + \beta_2.GII + \epsilon$ (used for testing H1)

Model 3: $GDP = \beta_0 + \beta_1.GII + \beta_2.FDI + \epsilon$ (used for testing H2 and H4)

Baron and Kenny's method initially require significant relationship among all the variables included in the conceptual model (Civelek, 2018). Therefore, Pearson correlation coefficients were calculated. As shown in the Table 1, the relationships among variables are statistically significant.

Table 1.
Correlation Coefficients

	GII	FDI	GDP
GII	1		
FDI	,204*	1	
GDP	,199*	,843*	1

* Correlation is significant at the 0.01 level

Three models were developed to test the mediator effect. R and R2 values of these models are shown in Table 2.

Table 2.
KMO and Bartlett
spherical test results

Models	R	R2	Adjusted R2	Standard Error of the Estimate
Model 1	0,199	0,040	0,035	3,24354
Model 2	0,204	0,042	0,037	6,59075
Model 3	0,843	0,711	0,709	1,78206

Models		Sum of Squares	Df	Mean Square	F	Sig.	Impact of Trust, Service quality, satisfaction on loyalty: Mediating role of 107
1	Regression	92,429	1	92,429	8,786	,003	
	Residual	2240,878	213	10,521			
	Total	2333,307	214				
2	Regression	402,809	1	402,809	9,273	,003	
	Residual	9252,297	213	43,438			
	Total	9655,105	214				
3	Regression	1660,054	2	830,027	261,366	,000	
	Residual	673,253	212	3,176			
	Total	2333,307	214				

Table 3.
ANOVA Tables

In Table 3, ANOVA test results of each model are shown. ANOVA results show that the models are statistically significant.

Relationship	Model 1	Model 2	Model 3
GII → GDP	0.199*		0.028
GII → FDI		0.204*	
FDI → GDP			0.837*

Table 4.
Hypotheses Results

Note: Regression coefficients are standardized.
*p<0.01

Sobel test was conducted (Sobel, 1982) in order to verify the results reached by Baron and Kenny method. As shown in Table 5, Sobel test result is significant.

	Sobel Test Statistic	P
GII → FDI → GDP	4.3195097	0,00

Table 5.
Sobel Test Results

As listed in Table 4; H1, H2, H3 and H4 were supported. These results of the tests supported a positive and significant relationship between global innovation index and foreign direct investment, between foreign direct investment and gross domestic product and between global innovation index and gross domestic product. These results also supported mediator role of foreign direct investment in the relationship between global innovation index and gross domestic product.

5. Conclusion

The current research contributes to the literature by discovering the mediating role of foreign direct investment in the relationship between the global innovation index and gross domestic product. Previous studies have highlighted the role that innovation plays in the development of the country. Certainly, innovation capacity has been identified as a prominent factor attracting foreign direct investment to countries (Kayalvizhi and Thenmozhi, 2018). This has prompted us to explore the relationship between the Global Innovation Index and Foreign Direct Investment. Many previous studies reveal that FDI plays a critical role in economic growth, development, exports and GDP. (Pelinescu and Radulescu, 2009; Zekarias, 2015; Hlavacek and Bal-Domanska, 2016). Moreover, the effect of innovation on economic growth and the correlation of innovation performance with GDP led us to develop hypotheses regarding the relationship between GII and GDP. After an extensive literature review, it has been ascertained that a study explaining how FDI plays a role in the relationship between GII and GDP does not exist. Furthermore; FDI, GII and GDP have not been investigated together in a study. Therefore, it is anticipated that this research will contribute to both future studies and companies by filling this gap in the literature.

A cross-sectional and quantitative research was conducted using data of 43 countries from

the World Bank between 2014 and 2018. As a result of the analysis, the mediating effect of foreign direct investment on the relationship between the global innovation index and gross domestic product was found to be statistically significant. According to the results, the importance of FDI emerged as having a great impact on the GDP figures of countries' innovation activities and making them more competitive and less imitative in global competition. It can be concluded that FDI has a substantial value in innovation and economic development. Correspondingly, it is underlined that decision makers should consider these three influential indicators together in their evaluation and analysis. Also, we have observed that our research findings are in line with the studies in the current literature. The fact that foreign direct investment greatly contributes to the economic development of countries by enabling technology transfer, organizational learning and international cooperation reinforces the importance of this research. It is anticipated that the result obtained in this article will contribute to the global innovation efforts, the development of products, services and processes enhancing the social life. Likewise, we argue that this study has the potential to change the perspectives of countries on foreign direct investment, gross domestic product and innovation at the national and international level. This research will indirectly support the production of high value-added products, the innovation performance of countries, which make them more attractive for foreign direct investment in the long term. It is also envisaged that these research results will be a valuable guide for companies and researchers based on the fact that foreign direct investment develops countries by enabling technology transfer, technology learning, organizational learning, international cooperation and partnership.

6. Limitations And Future Implications

The limitation of this study is that the research sample is restricted to 43 countries. Accordingly, it is suggested for future researchers to conduct this research with a larger sample of countries. Besides, we encourage future studies to conduct research by considering multiple quantitative indicators related to innovation and the state of the economy, as well as by conducting field research in this area.

Also, in the future, this research model can be enriched by adding other variables. For instance, digitalization emerges as one of the variables that should be examined together with economic growth and foreign direct investment. Indeed, some indices that provide information on digitalization, which is closely related to the economy, were used in a previous study (Digital Evolution Index, World Digital Competitiveness Ranking, Bloomberg Innovation Index) (Trusova, 2019). Thereby, forthcoming studies are encouraged to analyze the relationship between digitalization and economic growth globally by considering the relationship between these indices and GDP. Moreover, in future studies other variables related to technology might be included in the research model. An influential variable whose effect on economic growth has been illustrated in previous studies is information and communication technologies (ICT) (Morawczynski and Ngwenyama, 2007; Jalava and Pohjola, 2008; Sinha et al., 2021). The study of Nayak and Sahoo (2021), one of the valuable prior studies highlighting the impact of ICT on economic growth, has demonstrated that India's economic performance is positively affected by the development of FDI and ICT. Therefore, future research that analyze ICT, innovation, FDI and GDP together and make a comparison between countries using a larger country sample can make a significant contribution to literature. Likewise, the importance given to innovation and digitalization in countries after the Covid-19 epidemic, whether investments have increased and how this affects economic growth is another issue that needs to be examined.

Furthermore, the proven impact of innovation on GDP and the importance of the human role in creating innovation necessitate future research to include global indices related to human capital and education in this research model. Prior examinations have also shown the importance of human capital in economic growth (Adrian Risso and Sanchez Carrera, 2019). Specifically, human capital, coupled with technological innovation, has been shown to have a significant impact on growth (Adrian Risso and Sanchez Carrera, 2019). Additionally, it has been emphasized that the primary role of education is to adapt to innovation and technology

(Schultz, 1975). In this context, the relationship between education, GDP and innovation needs to be scrutinized in depth. This research has both theoretical and practical implications. Firstly, findings support the theory of endogenous growth which indicates that innovation stimulates economic growth. In addition, findings approve the neoclassical growth theory which suggests that foreign investment through multinational companies increases wealth in host nations and this situation enables the realization of growth much faster than domestic savings (Mohamed et al., 2021). The study present practical implications for governments and stakeholders. Findings indicate that countries should benefit the enriching potential of both GII and FDI. Accordingly, discoveries of this study have the potential to indirectly affect the economic performance of countries and enhance the perspective of decision makers related to innovation. Acknowledging these relationships between GII, FDI and GDP can guide country managers while taking strategic actions. Therefore, this research indirectly encourages decisions that make countries more competitive and productive. This research also underlines the significance of promoting innovation and developing investor-friendly policies to attract investors to the country.

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