



**EXPLORING THE MEDIATING ROLE OF STUDENT ENGAGEMENT: REINFORCING THE SIGNIFICANCE OF SUSTAINING INNOVATIVE PRACTICES FOR PROFESSIONAL BUSINESS STUDENTS EMPLOYMENT PROSPECTS**

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**Abstract**

**Purpose** - It's critical for educators to stay current on the best teaching practices as the field of education evolves. Teachers that use innovative teaching techniques can reach every student and give them a relevant learning experience. Students can improve their ability to solve problems and make decisions when they are given the chance to investigate, think critically, and work in groups. In addition to engaging students and utilizing creative approaches, they can achieve more success in their careers.

**Design / Methodology Approach** – The data for the study was collected through structured questionnaire from professional students via google form. A total number of 750 questionnaires were distributed. Out of which 620 responses were received and from 620, 201 were rejected due to lack of proper data. The questionnaire uses five-point Likert scale response format.

**Findings** – This study establishes a positive correlation between variables Innovative Practices (IP) and Anticipated Employment opportunities (AE) ( $\beta = 0.69$ ,  $t = 22.46$ ,  $p < 0.001$ ), Innovative Practices (IP) and Student Engagement (SE) ( $\beta = 0.47$ ,  $t = 16.92$ ,  $p < 0.001$ ) and student engagement (SE) and Anticipated Employment opportunities (AE) ( $\beta = 0.53$ ,  $t = 19.38$ ,  $p < 0.001$ ). The indirect effect of innovative practices through student engagement to anticipated employment opportunities ( $\beta_1 = 0.249$ ,  $p < 0.001$ ) shows the evidence for the partial mediation effect of student engagement between innovative practices and anticipated employment opportunities. The research analysis validates dependency of anticipated employment opportunities on innovative practices and student engagement. On testing the hypothesis, the dependent variable anticipated



employment opportunities are predicted by the independent variable innovative practices and also with the mediating variable student engagement at a 26.5% level of significance.

**Originality/Value** - This study provides insightful findings in understanding innovative practices and anticipated employment opportunities with the mediating effect of student engagement among business professional students in Karnataka, Tamil Nadu and Kerala states.

**Keywords** - Innovative Practices, Anticipated Employment opportunities, Student Engagement, Higher education institutions

### **Introduction**

Education is a beacon that points humanity in the proper way for growth. The goal of education is to develop a student's reasoning skills, general knowledge, and sense of independence in addition to their literacy. There is potential for advancement in any subject when there is a willingness to change. In an effort to achieve high levels of competitiveness and innovation in the market, the entrepreneurial activity is increasingly seen as a worthwhile endeavour that should be supported for its critical contribution to the economic and social development of a given region. Universities and Colleges play an important role in imparting entrepreneurial traits among students for their future in entrepreneurship. Innovative skills are fostered through entrepreneurship education and are a significant force for future growth (Wei et al., 2019). The Nigeria's Federal Government gave approval to the request of the National Universities Commission's (NUC) to incorporate Entrepreneurship Studies into the curriculum of all academic disciplines in Nigerian universities. In Nigeria, in order to give students, the skills they need to operate well and contribute to society after their studies, entrepreneurship education (EE) was incorporated into their curriculum (Davwet et al., 2019).

The strategic plans of Nigerian universities reflect this objective by giving undergraduates the opportunity to become entrepreneurs and lifelong learners. The success of each student in the global economy and their readiness to participate actively in a strong democracy are the fundamental aims of American public education. In order to achieve this, a county's Government, philanthropy, the business world, and the education sector must work together (Srinivasan et al., 2022). Due to the vitality and ability to revitalize the local knowledge base, start-ups and young firms have emerged as major contributors to the region's growth. Colleges and universities must include such educational programmes, which encourage and enhance entrepreneurship. More consideration must be given to the self-efficacy of entrepreneurship in this group in order to create an entrepreneurial support structure for college students (Luo et al., 2022). Students face unemployment problem in every year after their studies. Students' engagement in innovative practices is a mediating factor which enhances the employment opportunities. This study is motivated to examine the relationship between the innovative practices in the colleges and anticipated employment of MBA students with the mediating effect of students' engagement.

### **Review of Literature**



### **Relationship between IV & DV (Innovative Practices in the colleges & anticipated employment opportunities)**

Most of the colleges adopt innovative techniques to encourage the students from their base level in order to develop in their career. Students who have obtained internship programmes are considered as important for their career (Blau et al., 2021). In order to hone the presentation and interviewing skills, to create network with industry experts, to find internships, and to gain entrepreneurial experience, business students are continuously engaging in innovative activities. Students become the members of various clubs namely Entrepreneurial Development (ED) club and coordinates and begins to launch various products with their ideas. These organizations assure to provide those skills which are expected by the entrepreneurs from the students. Educational institutions especially professional institutions adapted new digital innovations to become more accessible to career opportunities (Goger et al., 2022). Internships have gained popularity over the years among both students seeking internships and colleges and schools incorporating them into their curricula or advertising them as extracurricular activities (Margaryan., 2020). Less than 3% of US university graduates had internship experience in 1980; by 2000, this figure had risen to almost 75% (Cook et al., 2004). Colleges conducts various seminars and workshops related to various concepts. Students take part actively in such seminars and workshops and make a significant contribution to improving their job chances. Colleges and universities provide opportunities to students to make speeches and power point presentations and after that they are rewarded with certificates. These types of presentations are fundamental for enhancing the career potential (Kapur, 2022). In certain countries Work Integrated Learning (WIL) is practiced which combines work experience with on-campus academic learning (Coll & Eames, 2007). Colleges provides certain types of training through which students can meet the requirements of employers. With the help of these trainings, they can realize their personal strengths and weaknesses and can improve wherever needed. Some colleges provide career planning courses, which improves the mental ability of students. Most of the students have less experience in attending interviews and preparing a vibrant resume. Colleges also conducts mock interviews which helps them to understand about the questions they are facing while attending an interview and what the interviewer is expecting from the students (Coll & Lay, 2001). Colleges and universities must work hard to create their own blood-generating function and promote employment through entrepreneurship in light of the challenging job environment. Studies shows that there exists a positive impact between innovative practices in colleges and the employment opportunities of students (Ali & Jalal, 2018).

### **H1: Innovative Practices in the colleges positively relates anticipated employment opportunities**

### **Relationship between IV & MV (Innovative Practices in the colleges & Student Engagement)**

As educational institutions become more competitive, so does education. Institutions must enhance their innovative college practices to stay afloat in the competitive environment. According to Arvind and Yashwanthrao (2019), it involves teaching students' soft skills, communication skills, experimental research, participatory learning, event management education etc. Business students frequently become involved in



campus organizations in order to acquire experience in entrepreneurship, network with professionals, find internships, and hone their presentation and interviewing abilities (Peltier, Scovotti, & Pointer, 2008). The institutions subtly guarantee to give students the competencies that employers want for in graduates. Likewise, employers anticipate that Recent grads possess practical understanding of strategic and strategic operations, as well as business and venture knowledge (Scott, 2013). Based on the results of several studies carried out in various nations. a study on "Innovative Technologies," aging labour forces and efficient human resource management etc. Research carried out in Japan highlights that a in addition to performing a complex job that combines multiple skills, such as programming upkeep, supervision, and functioning, he or she furthermore be necessary to have logical mental fortitude, aptitude for solving problems, and flexibility to deal with change. What a "all-around" the worker would possess a wide range of abilities. Combining technological expertise in a way that allows him to comprehend each step involved in using talents in the light of the required technical understanding. (Wats & Wats, 2009).

A paradigm for comprehending business undergraduate professional development engagement (PDE) was introduced by Blau et al., (2021). They defined PDE as "the level of undergraduate engagement in professional development". Their approach acknowledged that PDE can be operationalized using several measurements. An SPO is usually structured around a student's business major, such as business management, accounting, or such as marketing, finance, or human resources, and these SPOs frequently have outside corporate speakers, which can result in possibilities for student internships. According to Munoz, Miller, and Poole (2016), speaking with business speakers and professional development initiatives had a favourable impact on students' intention to participate in SPO (Gary Blau et.al 2021). In response to the teacher-centric, traditional teaching methodology (Che et al., 2021) and in line with the growing need for a more distinctive, participatory learning environment, academic institutions are focusing on methods of instruction that foster students' engagement, curiosity, and enthusiastic involvement. EL is an effective way of instruction. promoting active learning by giving students practical experiences where students engage and assess the course information critically and engage with a subject that is being taught (Boggu & Singh, 2019).

There are several problems that complicate the higher education sector's expanding involvement in providing high-quality graduates to this emerging global economy (Harris & Jago, 1999). This synopsis goes beyond the scope of current discussions about the relationship between educational providers and the events sector. Particularly in the events management sector, industry involvement models and Although job development hasn't gotten much attention, there are some topics that merit a conversation. Three methods are revealed by the literature for event management students may approach industry more closely. Essentially, this interaction would allow students to, through a medium, to connect theoretical ideas taught in the classroom to professional opinions or real-world situations.

## **H2: Innovative Practices in the colleges positively relates Student Engagement Relationship between MV & DV (Student Engagement & Anticipated Employment Opportunities)**



One of the main goals of the educational establishments is to prepare the students for finding employment. In addition to improving the standing of educational institutions, students can also play a major role in improving employment opportunities in well-known organizations. In order for students to perform their job duties in an orderly manner, educational institutions must make sure that they teach them job-specific skills. It is evident and well accepted that students pursue education in order to maintain improved living situations. Higher education institutions provide knowledge and information that enable students to achieve strong work possibilities, especially when they are studying bachelor's, master's, or doctoral programs. They can also hone their abilities, which they can apply in professional environments. As a result, educational programs are designed primarily at colleges and universities to prepare students for employment opportunities. People hold the belief that by attending postsecondary educational institutions, they will be able to improve their skills and abilities in order to obtain employment opportunities. According to Kapur (2019), a robust educational foundation is beneficial for students' professional success. However, in the modern era, with the rise of modernization and globalization, there are modifications occurring to the working environments in different organizations (Kapur, 2019). internship during college that examined the likelihood of receiving a job interview invitation through a correspondence study. We discovered that college graduates who have completed an internship are more likely than those who have not to be invited to a job interview (Baert et al. 2021).

One of the key objectives of an internship is to ensure a smooth transition from the student life to the work place (Coco & Rush, 2000). Internship programs provide students the opportunity to test their abilities, beliefs and attitudes pertaining to specific work tasks or career pathways (Neapolitan, 1992). They allow the students to close the gap between abstract classroom theory and practical work reality (Zopiatis, 2007). Students are given the opportunity to apply what they have been taught in traditional classroom settings to the real workplace and acquire a pragmatic view of a work challenges. "Internships programs can reinforce technical competencies, improve analytical skills and most important, foster an awareness of the constant need for adaptability and creativity in a changing world" (Coco & Rush, 2000). Interestingly enough, the study of the contribution that internship programs may have for new graduates' career prospects and employability options has only recently started to become the focus of scientific inquiry (Cannon and Arnold, 2010; Chhinzer and Russo, 2018; Finch et al., 2013; Gault et al., 2000; Varghese et al., 2012; Kapareliotis, 2019).

### **H3: Student Engagement positively relates Anticipated Employment Opportunities**

#### **Relationship between IV, MV & DV (Innovative Practices in the colleges, students' engagement & anticipated employment opportunities)**

The relationship between innovative practices in colleges, student engagement, and students' anticipated employment is multifaceted and interconnected. Innovative practices refer to various extracurricular programs, clubs, organizations, and events that students participate in outside of their academic coursework (Blau et al., 2021). These activities provide students with opportunities to explore their interests, develop skills, network with peers and professionals, and enhance their overall college experience.



Student engagement, on the other hand, encompasses the level of involvement, enthusiasm, and interaction that students exhibit towards their academic studies, campus life, and community. Engaged students actively participate in class discussions, take on leadership roles, collaborate with classmates, seek out research/internship opportunities, and utilize campus resources, among other activities (Shrout & Bolger, 2002).

These college activities and high levels of student engagement positively impact students' anticipated employment outcomes. Engaging in extracurricular activities allows students to build a diverse set of skills, including leadership, teamwork, communication, problem-solving, and time management. Such skills are highly valued by employers, as they reflect a well-rounded and proactive individual.

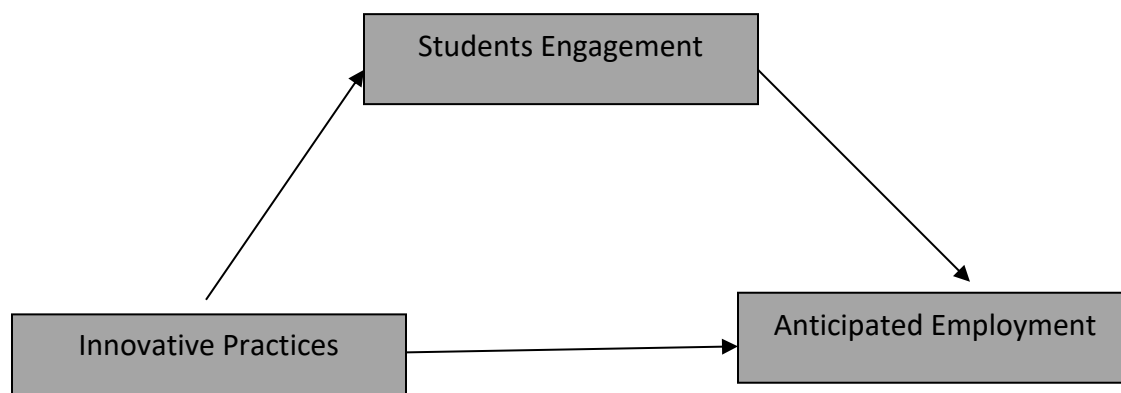
Furthermore, involvement in college activities often leads to expanded networks and connections, which can play a significant role in securing employment opportunities. Engaged students tend to establish relationships with faculty members, mentors, alumni, and professionals in their fields of interest, increasing their chances of receiving guidance, referrals, and job/internship offers.

Additionally, college activities and student engagement demonstrate to potential employers that an individual possesses qualities like passion, initiative, adaptability, and perseverance. Employers often seek candidates who demonstrate a strong work ethic, proactive attitudes, and a willingness to go beyond basic academic requirements (Mandernach et al., 2011).

It is important to note that while college activities and student engagement are beneficial for employment prospects, they are not the sole determining factors. Academic performance, relevant internships/work experiences, personal characteristics, and the job market conditions also play significant roles. However, engaging in college activities, actively participating in campus life, and demonstrating high levels of student engagement undoubtedly contribute to the holistic development of students and enhance their prospects for future employment success.

#### **H4: Student engagement mediates the relationship between innovative practices and anticipated employment opportunities**

##### **Conceptual Framework (Figure 1)**







### Data collection and population

A pilot study was executed through proficient business understudies in southern states Kerala, Tamilnadu and Karnataka. 120 business proficient understudies were chosen for this study. The legitimacy and dependability of the estimation scales were confirmed. In view of the criticism from the respondents, minor remedies were made to the survey. This study used the purposive sampling method (Kothari, 2004), and as previously stated, professional business students in India's southern states were chosen to collect data. A total of 750 questionnaires were sent to professional students via Google Forms with an assurance that the responses would remain anonymous. There was a total of 620 responses (82 percent); out of this, 201 were dismissed because of missing information. After the previously mentioned moderate pace of dismissal, 419 exact reactions (67.5%) were viewed as sensibly great in light of the review's tendency. The example included 246 (58.7%) female and 173 (41.2%) male business proficient understudies; 67 (16%) were hitched. The majority of respondents are studying in Karnataka—149 (35.5 percent), 132 (31.5 percent) in Tamilnadu, and 138 (32.9 percent) in Kerala.

### Measurement

#### **Innovative Practices**

Innovative practices were measured adopting self-reported data, the reliability measured by using Alfa score of 0.76 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and five highly agree

#### **Students Engagement**

Students Engagement was measured adopting self-reported data, the reliability measured by using Alfa score of 0.78 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

#### **Anticipated Employment**

Anticipated Employment was measured adopting self-reported data, the reliability measured by using Alfa score of 0.81. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
IP1	0.76	0.5776	0.4224			
IP2	0.83	0.6889	0.3111			
IP3	0.91	0.8281	0.1719			
IP4	0.78	0.6084	0.3916			
IP5	0.76	0.5776	0.4224			



IP6	0.81	0.6561	0.3439			
IP7	0.87	0.7569	0.2431			
IP8	0.92	0.8464	0.1536			
IP9	0.8	0.64	0.36	0.95	0.68	0.82
SE1	0.88	0.7744	0.2256			
SE2	0.84	0.7056	0.2944			
SE3	0.78	0.6084	0.3916			
SE4	0.71	0.5041	0.4959			
SE5	0.74	0.5476	0.4524			
SE6	0.79	0.6241	0.3759			
SE7	0.85	0.7225	0.2775			
SE8	0.91	0.8281	0.1719			
SE9	0.75	0.5625	0.4375			
SE10	0.76	0.5776	0.4224			
SE11	0.84	0.7056	0.2944	0.93	0.65	0.8
AE1	0.88	0.7744	0.2256			
AE2	0.81	0.6561	0.3439			
AE3	0.89	0.7921	0.2079			
AE4	0.79	0.6241	0.3759			
AE5	0.83	0.6889	0.3111			
AE6	0.93	0.8649	0.1351			
AE7	0.85	0.7225	0.2775			
AE8	0.78	0.6084	0.3916			
AE9	0.74	0.5476	0.4524			
AE10	0.84	0.7056	0.2944	0.96	0.69	0.83

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
IP	0.76	0.95	0.68
SE	0.78	0.93	0.65
AE	0.81	0.96	0.69

**Table 3 Discriminant Validity (By using AVE)**





	Square root of AVE	IP	SE	AE
IP	0.82	0.82		
SE	0.8	0.72	0.8	
AE	0.83	0.68	0.66	0.83

**Table 4 Model Fit Indices**

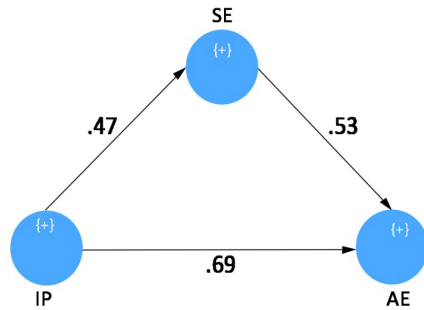
Factors	Values	Factors	Values
CMIN	2.11	DF	1
Chi-square	2.07	P Value	0.000
AGFI	.943	GFI	0.914
TLI	.932	CFI	.907
RMSEA	.017	RMR	0.044

### Analysis and results

This large number of scales were adjusted and approved explicitly for the current exploration. Prior to testing the speculation, the develop legitimacy was established through Corroborative Element Examination (CFA). Utilizing the equation suggested by Fornell and Larcker (1981), normal fluctuation extricated (AVE) and composite dependability (CR) was determined. In the ongoing review, AVE is more than 0.50, and that implies the noticed variable's blunder is inside limits. For guaranteeing the general build legitimacy, united legitimacy examination and discriminant legitimacy investigation were executed. According to focalized legitimacy, each build is more than 0.50. AVE for IP has a typical develop of 0.68, SE has a typical build of 0.65, AE has a typical build of 0.69. As a result, we are able to declare that each construct possesses the required convergence and discriminant validity. The square foundation of the AVE is additionally higher than the relationship of the builds. Thus, adequate guidelines of discriminant legitimacy exist among the builds. After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square



error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are  $> 0.9$ ; hence, the constructs have an excellent model fit (Table 4).



**Table 5 Direct Effect**

Hypotheses	Path Relation	Original Sample	SE	T Values	P Values	Decisions
H1	IP → AE	.69	0.014	22.46	0.00	Supported
H2	IP → SE	.47	0.036	16.92	0.00	Supported
H3	SE → AE	.53	0.012	19.38	0.00	Supported

**Hypothesis testing**

As per Aiken and West (1991), all the constructs were mean-centered prior to the mediation analysis. Structural Equation Models (SEM) were created to analyze the mediation effect of SE on IP and AE by adopting the pattern as per Baron and Kenny (1986). As per the result, the direct effect observed between IP and AE ( $\beta=0.69$ ;  $p < 0.001$ ). Hence H1 is accepted; the direct effect between IP and SE ( $\beta=0.47$ ;  $p < 0.001$ ). Hence H2 is accepted. The direct effect between SE and AE ( $\beta=0.53$ ;  $p < 0.001$ ). Therefore H3 is accepted.

**Table 6 Mediation Effect**



Hypotheses	Associations	Direct Effect	Indirect Effect	Total Effect	VAF	Mediation
H4	IP → SE → AE	.69	0.249	0.939	26.5%	Partial mediation

### Mediation Analysis

The mediation analysis includes laying out the hypothetical circuitous connections between develops that is the interceding variable adjust the immediate way. Computing the intervening impact empower the distinguishing proof of through all out connection between the builds. The variance accounted for statistics (VAF), which calculate the influence of indirect effect on dependent variable or how much the dependent variable is explained by indirect effect through mediator variable, indicates that students' engagement has a partial mediation effect on innovative practices on anticipated employment. Here, the direct effect between IP and AE is 0.69, the indirect effect is 0.249, and the total effect is 0.939. For speculation it is found that VAF esteem in the middle between 20% - 80% that shows halfway intercession and thus H4 is acknowledged.

### Implications

Innovative practices help the professional business students to find out the employment opportunities in better areas. Based on students' perception it will benefit them to increase their potentialities and abilities. In short innovative practices not only assist the professional students to find a better job, but also make them to take crucial decision in their life journey.

### Discussion

Students' engagement in innovative practices helps the students to earn practical experience in the changing world. It leads to find out better employment opportunities also. It helps to enhance various skills like leadership, communication, and analytical skills etc. the results of this study indicates that there is direct effect between innovative practices and anticipated employment. It helps the students to identify areas that needs to improve their talents. Students' engagement has partial mediation effect on innovative practices on anticipated employment.

### Conclusion

The study reveals that there is a positive relationship between innovative practices and anticipated employment. The questionnaire was developed to collect data from 120 professional business students in southern states Kerala, Tamil Nadu and Karnataka. According to this analysis there is significant relation between innovative practices and anticipated employment. Innovative practices help the students to improve their technical competence, analytical skills and creativity in the changing world.



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## **EXAMINING THE MODERATING ROLE OF EMPLOYEE HARMONY WITH THE IMPACT OF WORKPLACE CONFLICT ON EMPLOYEE PRODUCTIVITY IN HOSPITAL ADMINISTRATION**

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### **Abstract**

Work place harmony serves as an important Elements in increasing employee productivity. This paper mainly aims to investigate the Moderating Role of Employee Harmony with the Impact of Workplace Conflict on Employee Productivity. This study mainly focused on the employees of hospital sectors in Kerala state. 393 accurate questionnaires were received. The results of this study indicate that there is a substantial negative correlation is observed between workplace conflict and employee harmony. This study observed that there is a moderation effect of employee harmony on workplace conflict and employee productivity. Employees are more satisfied and they work enthusiastically if they experience good harmony among employees which results into higher productivity.

**Key words:** Workplace Harmony, Higher productivity, Workplace conflict.

### **Introduction**

Every employee yearns for a harmonious work environment. Because, harmonious workplaces foster individual growth, physical and mental health of an employee. It ensures both energy and synergy within individuals which contributes to overall well-being of a person (De Munari, 2022). Also, it helps the organization to bring out the maximum productivity from an employee.

Workplace harmony should be the key focus of every organization. But workplace conflict is an inevitable aspect of every job. It can occur in any sector or organization. This happens mainly because, when employees with different backgrounds and disparate work styles are brought together, there will be contradictory ideas, priorities and opinions (SHRM, 2023). Hospitals are one such organization that are prone to workplace conflict. High workload, shortage of resources, differences in manager's personality, bureaucracy, etc., are some traits that causes issues among employees, which ultimately creates workplace conflicts (Mosadeghrad & Mojbafan, 2019).

Conflicts can take forms in umpteen ways like insults, noncooperation, harassment, discrimination, miscommunication, bullying, etc., between employees (Scopelliti, 2018). These are wonted at every workplace and only the degree of action varies from place to place. In hospitals, conflicts may occur between physicians, among physicians and staff, or between management and staffs (Ramsay, 2001). If

these conflicts are not resolved timely, then there will be serious consequences.

The conflicts at workplace can influence the potentiality of employees in many ways. A stressed or irritated employee is not only non-beneficial, but also affect adversely to an organization and even to the society (Abbas, 2022). Thus, recapitulating these corroborations, the following study focuses on how conflict among employees at hospital administrations affect productivity of their service and the role of harmony amidst this scenario.

### **Review of Literature**

#### **Workplace Conflict and Productivity of Employees**

Workplaces are the breeding ground for conflict as different personalities, ideas and opinions clash. It is commonly seen in hospital administration. Conflicts can occur between nurses, doctors, etc. Miscommunication, misunderstandings, interpersonal rivalry, egoistic nature, etc., are the potential sources of strife among employees (Dadar, 2023). The general reactions to discord in the workplace are anger, frustration, stress, anxiousness, nervousness, loss of self-esteem and trouble sleeping (Krumina, 2020). A mentally and physically disturbed employee can neither be beneficial nor fecund to an organization. If there are conflicts going on at hospitals, not only the employees but also the patients or common people suffers. Employees entangled in conflicts become distracted and they won't be able to focus on their tasks, resulting in decreased productivity levels (Dadar, 2023). The distracted hospital employee is actually putting the lives of the patients at risk. The delays in completion of tasks nullify the overall growth of an organization (De Nicola, 2023). Similarly, workplace disputes cause disruptions in work, wastes time, damage relationships, promote absenteeism and even employee turnover, which adversely affect productivity of a worker (Benstead, 2019). Thus, it is clear that unresolved workplace conflicts can inflict serious damage to an employee which ultimately leads to low productivity (Qazi, 2019).

**H1: There is a direct relation between workplace conflict and employee productivity.**

#### **Employee Productivity and Employee Harmony**

As executives the workers expend a substance part of their lives in the workplace and it is important that the work place that is hospital atmosphere remains a secured, encouraged and amicable surroundings for the workforce. Workplace bullying in its various forms can obstruct productivity and injure self-esteem and employees will be emotionally damaged if the hospital administration remains poor. Productivity can be ensured if workplace harmony is ensured (Lisa Wong DTM, 2023). Hospital welfare measures plays a vital role in the continuous growth in the hospital as well as on its workers. The workers will be very happy when they have dissonance in their workplace which results in high productivity (Ratih Devi Aryanti, et al.,2020). One of the fine facets of an organization is to take initiative to bringing combined effort to ensure harmony in the work place which definitely results in high productivity by reducing the risk of dispute and build up strong base for an organization (Debarun Chakraborty and Wendrila Biswas ,2020). In order to ensure increased motivation and determination it is highly required that every hospital administration should inculcate workplace harmony among workers (Fadillah Ismail et al.,2022). The chief emotional officer is the key factor in any of the organization which links the workers and ensure that harmony is being created among the workers and in the business and results in high productivity (Christopher Lowe and Julia Evans ,2015). The extension of self-consonance brings Independence and provides a positive workplace which ultimately results in high productivity and harmony in any hospital sectors (Noorulhudaabih, 2022).

**H2: There is a significant and positive relationship between employee productivity and employee harmony.**

### **Employee Conflict and Employee Harmony**

A decent and peaceful work environment is one where harassment is nonexistent and where everyone is treated with respect and decency. It's not only a good habit; it may also directly help hospital administration by raising efficiency, and productivity. Any hospital administration's ability to succeed depends on having a positive work environment. (Dr. Patrick Nkiinebari Newinyokpugi, 2010). When there is a dispute among employees because of divergent interests, personalities, views, or ideas, it can lead to workplace conflict. Conflicts arise when one party believes that its interdependent counterparts are ignoring its objectives, values, or points of view. (Wall & Callister, 1995) while others (De Deru & Gelfand et.al., 2007) opined that work place conflict may arise because of scarce resources in the workplace.

**H3: There is a significant and positive relationship between employee conflict and employee harmony.**

### **Employee Conflict and Productivity through Harmony**

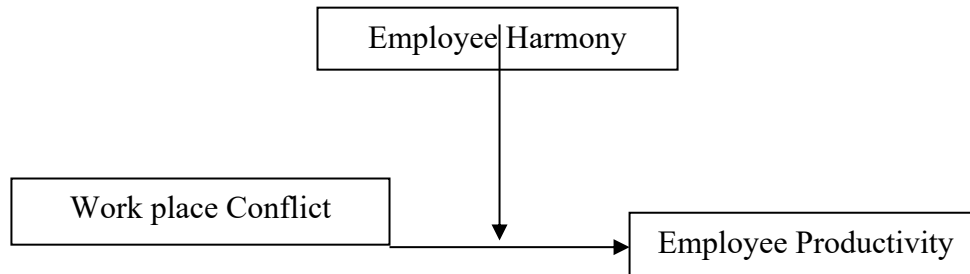
Productivity can be significantly impacted by conflict at workplace of hospital administration in Kerala state. The organization must work to develop and nurture harmony which requires a two-way relationship between employer and employee (Dr. Patrick N, 2015) conflicts involve individuals or teams. workplace harmony will boost productivity in hospital employees. Harmony in the workplace implies that organizational members share similar ideas, beliefs, and a sense of belonging (Miidom and Dumbor Frank March, 2022) conflicts can be relationship based and task based. Employees, who have different personality, have different attitude towards organizational conflicts. Conflict management tactics positively moderate the relationship between task conflict and performance. Both of them has significant effect on the productivity of employee and organizational outcome. Hospital employee conflict arises primarily from the group's interpersonal relations. It is associated with emotional responses aroused during interpersonal clashes. no organization can survive or succeed without unflinching manifestations of harmonious and peaceful coexistence between the various stakeholders like nurse, doctors, public relation officer employees and management. Employee harmony became a phenomenon in every organization because of the rational nature of human being (employees) as well as the general notion that they are the most valued asset of the organization whose level of commitment and engagement depends on how far the management is people-oriented. (Wobodo C.C, 2019) Industrial harmony enhances labour productivity and in turn improves performance in organizations, achieving economic growth, and enhancing living standards and quality of life. It creates a peaceful working environment conducive to tolerance. This creates a high level of employee satisfaction. (Dr. Chinedu UzochukwuOnyeizugbe, 2018). Nwokocha, 2015 conducted a conceptual study on the title Employers and the Enhancement of Industrial Harmony in Private Sector Organizations in Nigeria. The study examines the role of employers in enhancing industrial harmony in organizations with a focus on private sector organizations in Nigeria. The paper posits that conflict is inevitable in all organizations and, as such, the employer who has the responsibility of making major organizational policies to achieve corporate objectives must play a dominant role in ensuring industrial harmony. The paper exposes some of the factors that undermine industrial harmony and productivity in private sector organizations to include leadership behavior, lack of effective communication, work environment, and non-recognition of trade union as a bargaining party. It further explicates that productivity and growth are not fully enhanced because of management practice of exclusionism, poor labor-management policies, and dehumanization of work environment.

**H4: There is a significant relationship between employee conflict and productivity through employee harmony.**

## **Objectives**

The purpose of this study is to evaluate the impact of workplace conflict on employee productivity with a moderation effect of employee harmony of hospital employees of Kerala state.

## **Conceptual Framework (Figure 1)**



## **Data collection and population**

A pilot study was executed through the employees of hospital in Kerala State. One hundred respondents from various hospital consisting doctors, nurses, other healthcare employees, public relation officers and other employee of hospital administration selected for this survey. The validity and reliability of the measurement scales were verified. Based on the feedback from the respondents, minor corrections were made to the questionnaire.

The purposive sampling technique (Kothari, 2004) was employed for this research, and as mentioned above, employees of hospitals in Kerala were selected. A total of 1000 questionnaires were circulated through google forms to the respondents of hospitals with an assurance statement of privacy and anonymity of the responses. A total of 640 responses were received (64%); out of this, 247 were rejected due to missing data. After the aforementioned moderate rate of rejection, 393 accurate responses (62%) were considered reasonably good because of the study's nature. The sample included 76(19.3%) doctors, 109 (27.7%) nurses, 84 (21.3%) other healthcare employees, 86 (21.8%) public relation officers and 38 other employees of hospital administration (9.6%). Majority of the respondents 228 (58%) are female and 165(42%) are male.

## **Measurement**

### **Workplace Conflict**

Workplace conflict was measured adopting self-reported data, there liability measured by using Alfa score of 0.84 and normality tested by using skewness and kurtosis. It is in between  $-1.96$  and  $+1.96$ . Here 5 - point Likert scale was used; 1 - extremely unlikely and 5 - extremely likely.

### **Employee Harmony**

Employee harmony was measured adopting self-reported data, there liability measured by using Alfa score of 0.91 and normality tested by usings skewness and kurtosis. It is in between  $-1.96$  and  $+1.96$ . Here 5 – point Likert scale was used; 1- highly disagree and 5-highly agree.

### **Employee Productivity**

Employee productivity was measured adopting self-reported data, there liability measured by using Alfa score of 0.86 and normality tested by using skewness and kurtosis. It is in between  $-1.96$  and  $+1.96$ . Here 5 – point Likert scale was used; 1-highly disagree and 5- highly agree.

**Findings**

In this research, a substantial association was established between variables Work Place Conflict and Employee Productivity in hospital administration (factor=-.21), WPC and Employee Productivity. The research validates that the Work Place Conflict along with Employee Harmony influences the Employee Productivity in hospitals in Kerala state. On testing the hypothesis, the result shows that the dependent variable, Employee Productivity, is substantially predicted by Work Place Conflict directly and through specific moderating variable Employee Harmony at a 95 % level of confidence.

**Table 1 Convergent Validity**

Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
WPC1	0.78	0.6084	0.3916			
WPC2	0.83	0.6889	0.3111			
WPC3	0.72	0.5184	0.4816			
WPC4	0.78	0.6084	0.3916			
WPC5	0.71	0.5041	0.4959			
WPC6	0.81	0.6561	0.3439			
WPC7	0.77	0.5929	0.4071			
WPC8	0.86	0.7396	0.2604			
WPC9	0.78	0.6084	0.3916			
WPC10	0.74	0.5476	0.4524			
WPC11	0.72	0.5184	0.4816			
WPC12	0.84	0.7056	0.2944			
WPC13	0.75	0.5625	0.4375	0.95	0.6	0.77
EH1	0.78	0.6084	0.3916			
EH2	0.81	0.6561	0.3439			
EH3	0.77	0.5929	0.4071			
EH4	0.74	0.5476	0.4524			
EH5	0.76	0.5776	0.4224			
EH6	0.77	0.5929	0.4071			
EH7	0.72	0.5184	0.4816			
EH8	0.75	0.5625	0.4375			
EH9	0.71	0.5041	0.4959	0.92	0.57	0.75
EP1	0.82	0.6724	0.3276			
EP2	0.72	0.5184	0.4816			
EP3	0.73	0.5329	0.4671			
EP4	0.88	0.7744	0.2256			
EP5	0.72	0.5184	0.4816			
EP6	0.78	0.6084	0.3916			
EP7	0.87	0.7569	0.2431			
EP8	0.71	0.5041	0.4959			
EP9	0.77	0.5929	0.4071			
EP10	0.71	0.5041	0.4959			
EP11	0.71	0.5041	0.4959	0.94	0.59	0.76



**Table 2 Constructs Reliability and Validity**

Variables	CA	CR	AVE
WPC	0.84	0.95	0.6
EH	0.91	0.92	0.57
EP	0.86	0.94	0.59

**Table 3 Discriminant Validity (By using AVE)**

	Square root of AVE	WPC	EH	EP
<b>WPC</b>	<b>0.77</b>	<b>0.77</b>		
<b>EH</b>	<b>0.75</b>	0.54	<b>0.75</b>	
<b>EP</b>	<b>0.76</b>	0.51	0.53	<b>0.76</b>

**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.31	DF	1
Chi-square	2.11	P Value	0.000,
AGFI	.902	GFI	0.92
TLI	.904	CFI	.918
RMSEA	.031	RMR	0.014

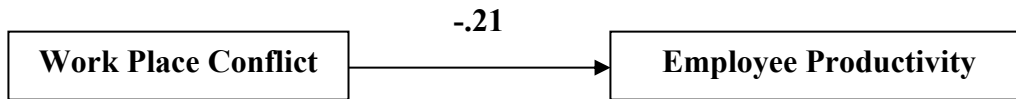
**Analysis and Results**

All these scales were modified and validated specifically for the present research. Before testing the hypothesis, the construct validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), average variance extracted (AVE) and composite liability (CR) was calculated. In the current study, AVE is more than 0.50, which means the observed variable’s error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. As per convergent validity, each construct is more than 0.50. AVE for WPC has an average construct of 0.6, EH has an average construct of 0.57, EP has an average construct of 0.59. Hence, we can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is <5; root means square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are >0.9; hence, the constructs have an excellent model

fit (Table 4).

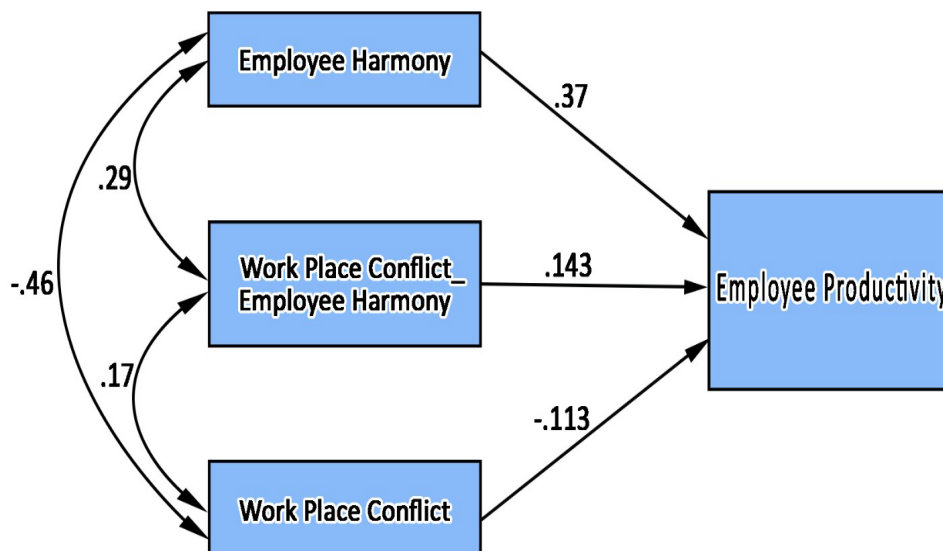
**Direct Effect (Figure 2)**



**Table 5 Direct Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H1	WPC→ EP	-0.21	0.186	6.321	0.00	Supported

**Moderating Effect (Figure 3)**



**Table 6 Moderation Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H2	WPC→ EP	-0.113	0.011	3.136	0.000	Supported
H3	EH → EP	0.37	0.036	7.214	0.000	Supported
H4	WPC_EH→EP	0.143	0.066	3.126	0.000	Supported

**Hypothesis Testing**

As per Aiken and West (1991), all the constructs were mean-centered prior to the moderation analysis. Three Structural Equation Models (SEM) were created to analyze the moderating effect of EH on WPC and EP by adopting the pattern as per Baron and Kenny (1986). As per the result, a substantial negative correlation is observed between WPC and EH ( $r=-0.46$  and  $p < 0.001$ ), hence H5 is accepted.

**Moderator - CA**

Figure 3, evaluated the independent variable’s impact on the dependent variable; measured the impact of moderating variable on the dependent variable; verified the interaction effect and its impact on the

dependent variable, while Figure 2 exhibits, direct impact of WPC to EP ( $\beta = -0.21$ ;  $p < 0.001$ ); thus, H1 is accepted. Figure 3 shows that the moderation effect of EH with the relationship of WPC on EP. The WPC on EP shows a negative impact ( $\beta = -0.113$ ;  $p < 0.001$ ). Therefore, H2 is accepted. The moderator EH as has a positive impact on EP ( $\beta=0.37$ ;  $p < 0.001$ ). Therefore, H3 is accepted. The interaction term between WPC and EH was positively connected to EP ( $\beta=0.143$ ;  $p < 0.001$ ). Therefore, H4 is accepted.

### **Implications of the study**

The paper analyses how a harmonious workplace and troubled workplace affect employee productivity in hospital sector. Conflict is an inherent aspect in any kind of workplace but one must find ways to tackle it. It is quite natural that a workplace with conflict among employees creates negative energy and employees won't be able to give their maximum productivity. This is bad to both employees and the organization.

On the other hand, a harmonious workplace brings maximum output. Finding solution to workplace conflict requires patience and the goal is to identify a fair and practical resolution which allows a harmonious and more productive work environment.

### **Discussions**

Moderating role of employee harmony on workplace conflict on employee productivity is impacted in hospital administration. The purpose of this research study is to evaluate the impact of workplace conflict on employee productivity with a moderation effect of employee harmony of hospital employees of Kerala state. The results of this study indicate that there is a substantial negative correlation is observed between workplace conflict and employee harmony. This study observed that there is a moderation effect of employee harmony on workplace conflict and employee productivity. Employees are more committed and they work effectively if they feel employee harmony among the workforce.

### **Conclusion**

This paper sought to identify the moderating effect of employee harmony with the impact of workplace conflict on employee's productivity in hospital administration. 393 accurate responses were received and the study revealed that there is a substantial negative correlation between workplace conflict and employee harmony. and moderation effect of employee harmony on workplace conflict and employee productivity. This study also revealed that employee harmony among the workplace results in harmonious work environment, employees are more likely to be happy and engaged which results in higher productivity.

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## MEDIATING ROLE OF GI TAG- REJUVENATING AND UPHOLDING HERITAGE AND ITS UPSHOT ON TOURISM

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### **Abstract**

**Purpose** - There are many legal guidelines and treaties enacted by the World Intellectual Property Organisation (WIPO) and World Trade Organisation (WTO) for the safety of Geographical Indications. Obtaining Geographical Indication (GI) protection for Indian goods types can extensively make contributions to the upkeep and merchandising of these wealthy cultural traditions. Preserving cultural heritage is of paramount importance in preserving the identity and traditions of a society. By securing GI status, these items can hold their uniqueness with the aid of highlighting their unique historical, social, and cultural significance

It is argued that Geographical Indications have conceivable to be India's growth engine and attract foreign tourists to buy GI tagged goods and its popularity can be spread with the aid of word of mouth, social media, consequently boosting out tourism. GIs can help to defend the reputation and exceptional of products, and they can additionally raise the local economy by way of attracting vacationers and investment. The products with GI tag help in increasing exports and earning, promotes tourism, cultural heritage and national identity.

**Design/Methodology** - The scrutiny and detailed exploration have made lookup on the connecting relationship of the Mediating position of GI Tag- Rejuvenating and upholding heritage and its upshot on tourism. Judgement sampling was used to collect data 704 responses collected from the general public.

**Findings** -The main focus of the study is to determine the relationship between cultural heritage and its effect on Indian tourism with the mediating factor of GI Tag. The results of the research show that geographical indication have conceivable to be India's growth engine and attract foreign tourists to buy GI tagged products and there by upholding cultural Heritage. From this study, we can realize cultural heritage has an impact on tourism and GI Tag and GI Tag has direct impact on tourism.

**Originality/ Value** - The analysis has made lookup on the relationship of the Mediating position of GI Tag- Rejuvenating and upholding heritage and its upshot on tourism which has now not been theoretically scrutinized and empirically tested.

**Keywords** - Geographical Indications, GI tags, Cultural Heritage, Tourism, Products, Trade



## **Introduction**

(GI)Geographical Indication is special from other IPRs like Patent, Trademarks and designs. Geographical Indication Protection is granted to a crew of manufacturers, who belong to a precise location, the place the goods first originated. There are many determinants of GI products such as vicinity of origin, climate, topography, human work of a specific geographical location. As per Section 2(1)(e) of the Geographical Indications of Goods (Registration and Protection)Act,1999,“a geographical indication refers to an indication capable of figuring out goods, along with herbal goods, agricultural goods, or manufactured goods, as manufactured or originating in a country’s territory, or a locality or place inside the territory, the place a particular quality, reputation, or any different attribute of such excellent is in particular a characteristic to its geographical origin. In the case of manufactured goods, one of the activities corresponding to the processing, production,or training of goods, ought to take area in the territory, region, or locality”. Indian GI Act came into pressure with effect from 15 September 2003.Geographical symptoms (GIs) are one of the large intellectual property rights. India has got a larger range of Gagged products now. India has manageable positive aspects and nice scenario due to the wealthy cultural heritage and standard skills in a range of regions like Kashmir, Punjab, Kerala, Haryana.The welfare and benefits of GIs are generous and if utilised properly, they can play a crucial position in boosting the economy of a zone and spearheading the path for growth and development in the indigenous community. In case, of India, GIs plays as a Insurance or protection. Due to historic trends in Europe, Italian, French, and Spanish producers and processors in specific have used up to now the outlined advantages of the gadget also acknowledged as GI legislation greater energetically than producers from different European Union (EU) countries, thereby achieving considerable turnover and export possible (Mora, 2007)The increase in international competitiveness among the different nations for a globalise world lead to struggle of all countries among each other to have bigger share in the world market. GI has increased exponentially in terms of global food market in the last 25 years (Profeta et al., 2010; Roustiala & Munzer 2007)

These are the situations of increase of knowledge financial machine and protection of ordinary knowledge. Market economies continually face the issues of imitations, piracy and misuse of expertise for the sake of greater and larger income by using added many schemes like ‘Make in India’, ‘Atmanirbhar Bharat’. It has come to be more critical to shield the Intellectual property as nicely as our normal statistics and capabilities of a variety of geographical regions. The unfold of pandemic Covid-2019 has sensitized all to join to the roots of everyday information specifically in health quarter and to retain and shield all sorts of intellectual property in this digital era. The safety of mental property by way of legal guidelines will help to reap benefits in phrases of economic growth, employment and earnings generation. In this way, it will become less complicated to cease the copying and misuse of IPR.

## **Literature Review**

### **Tourism and Heritage**

Tourism is termed as inter- related processes especially economic ones that come into play through influx, temporary residence and dispersal of strangers. The tourism is a product of tourists’ host interaction that needs attractions, accommodation, accessibility, amenities and advertisement (Barkart & Medlik, 1974).

In the global phenomena, tourism has emerged as an economic activity in terms of generation of employment, growth of revenue, foreign exchange, promoting environment preservation, rejuvenation of the culture and tradition and thereby facilitating overall development on the modern society. It is a cultural, social, economical components that related to travel of people to places outside their place of residence and work for pleasure and relaxation being the usual motivation. Tourism has been a critical part of social change as well an imperative to introduce through human history the development of the socio-economic and cultural interface. This study is concerned with the cultural and Heritage tourism in India and in existing status. Since ancient times unique culture and heritage of ours have always attracted people from across the globe towards it and when given an organised and structured form of tourism and service industry this can be one of the prominent sources of revenue generation for the government and employment orientation for the people. Historical, artistic and cultural heritage are significant tourism item in India. In India and ideal and excellent heritage tourism destination with a plethora of unexpected heritage packages. Splendid temples, magnificent fort, whispering palaces pleasure gardens, mosque domes, minarets, art galleries, formal landscapes, urban and rural cites that were the cradles of civilization, all these became objects of cultural tourism. Heritage tourism strengthens cultural identity and connectivity with the past, fosters peoples peace and understanding and helps to renew tourism. Tourism is a vital economic field and contributes significantly to both the country's Gross Domestic Product and Foreign Exchange Earnings.

## **H1-Cultural Heritage has an impact on tourism**

### **Relationship between Heritage and GI Tag**

Geographical Indication (GI) is a name or a sign used on certain goods or products that have specific geographical origin (a region or country). It is an identification applied to products that trace their origin to a specific geographical location. The qualities, place of origin, and group preserving the product; provide uniqueness to the product. The products can be both natural and handcrafted. The Department of Industry Promotion and Internal Trade, Ministry of Commerce and Industry, issues GI tags. The first GI tag was facilitated to Darjeeling Tea (Agriculture), West Bengal. Geographical indications are part of the Intellectual property rights (IPR's) under the Paris Convention for the Protection of Industrial Property, 1883. At International level, GI is governed by the World Trade Organization's (WTO's) agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). Geographical Indication (G.I.) tags in India play a vital role in the preservation of cultural heritage, assurance of product quality, and stimulation of economic growth. These tags effectively safeguard traditional knowledge, provide legal recognition and market access, and support local communities, artisans, farmers, and producers. The remarkable influence of G.I. tags can be observed through case studies such as Darjeeling Tea, Banarasi Silk, Alphonso Mango, Pashmina Shawls, and Nagpur Orange, which exemplify the significant impact in safeguarding India's cultural legacy, enhancing local economies, and highlighting the distinctiveness of its traditional products. As India continues to cherish and safeguard its diverse heritage, G.I. tags assume a pivotal role in the preservation and promotion of the nation's rich cultural identity. GIs serve as a means to safeguard India's cultural heritage, protecting it from misappropriation and imitation. By certifying the authenticity of dance forms, GIs prevent unauthorized use of the name and ensure that consumers can trust the quality and origin of the performances.

## **H2- Cultural Heritage has a significant impact on GI tags**

### **GI and Tourism**

Tourism and hospitality have become key international monetary things to do as expectations with regard to our use of amusement time have evolved, attributing higher meaning to our free time. While the increase in tourism has been impressive, India's share in whole global tourism arrivals and salary is pretty insignificant. It is a generic truth that India has remarkable doable for development of tourism (Shalini N. Tripathi & Masood H. Siddiqui, 2010). As mentioned, GI are certifications supplied for goods originating from unique location representing unique traditional qualities and cultural significance. If we take the case of India, GI plays a pivotal position in retaining typical expertise and bettering Tourism etc. Gi promote tourism in India with the aid of drawing travelers keen to explore and journey special usual merchandise representing the various customs and practices of extraordinary regions. Tourists are attracted to the prosperous cultural heritage upheld via GI contributing to the growth of cultural tourism and in addition boosting local industries, employment possibilities over all monetary . Geographical Indication (GI) certified merchandise from India consisting of the famous Banarasi Paan, Assamese Gamosa, Kangra Tea, Gondi painting, Ladakhi woodwork are in the spotlight across the world. GIs have a substantial impact on advertising exports and riding financial development. GIs help create market demand and recognition for merchandise associated with unique regions, enhancing their competitiveness each domestically and internationally. This affords a improve to local industries, increases employment opportunities, and contributes substantially to usual economic development. Geographical Indications (GIs) promote tourism in India by using drawing traveler's keen to explore and journey unique standard merchandise representing the various customs and practices of exceptional regions. GIs provide felony safety to make sure the authenticity and exceptional of these products, instilling confidence in consumers. Tourists are attracted to the rich cultural heritage upheld through GIs, contributing to the increase of cultural tourism and similarly boosting nearby industries, employment opportunities, and ordinary monetary development. Export Promotion Councils (EPCs) play an imperative feature in supporting unique export merchandise and assisting Indian exporters. The Companies Act/Societies Registration Act allowed for the institution of these councils as non-profit institutions. They provide advice, market research, and promotional things to do to extend exports in order to meet the first-rate wishes of increased than a few export sectors. The Ministry of Commerce and Industry's Directorate General of Foreign Trade (DGFT) is in fee of carrying out import and export regulations.

### **H3- GI tags have a direct impact on tourism**

#### **GI and Heritage**

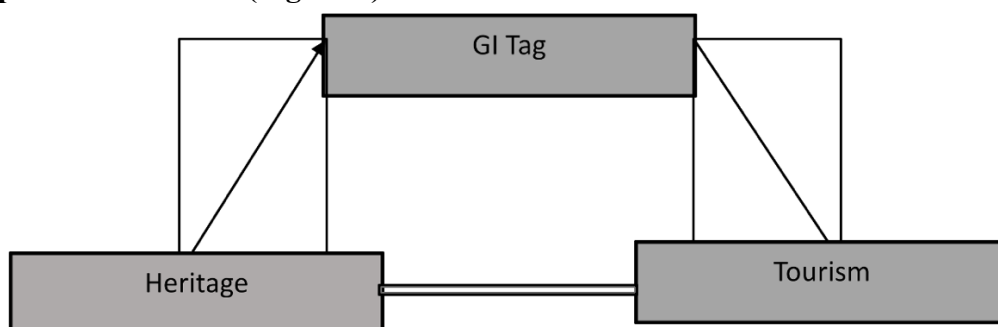
Geographic Indications (GI) are names or symbols given to a product that refer to its geographical area or region, city, or country of origin. A geographical indication can be used to indicate that a product has been produced using traditional methods, that it has a unique characteristic, or that it has a specific name because of its geographical origin. GI marks make sure that a well-known product name cannot be used by people who are not registered as authorized users of the product. In order for a label to function as a GI, it must indicate that the product is produced in a certain location. In India, "GI tags" are the abbreviation for Geographical Indications tags. On September 15, 2003, it became operative. The first Indian product to receive a GI tag was Darjeeling tea . Geographical indications (GI) have emerged as a powerful tool to protect traditional knowledge, protect indigenous crops and promote economic growth. G.I. The indicators that show the origin and authenticity of a product are its quality and its reputation related to its geographical location. (Singhal,2023)Geographical indications are intellectual property rights that give products a specific geographical origin and an attribute or name associated with that

region.G.I

.Trademarks protect traditional knowledge, traditional information and unique characteristics associated with products. This provides legal protection against unauthorized use or imitation, and provides economic benefits to the communities that protect and develop these products. Geographical Indications are used for:Wine and spirit drinks, Food products, Agricultural products,Handicrafts,Industrial Products (Lahari,2022).Geographical indications are part of intellectual property rights (IPR) under the Paris Convention for the Protection of Industrial Property. At the international level, geographical indications are covered by the World Trade Organization's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) .(byjus) For the protection of heritage and culture GI helped to preserve traditions, knowledge and cultural heritage from generation to generation. These brands ensure that the unique identity and heritage associated with a product is preserved and not diluted through imitation or copying. G.I.plays a significant role in preserving and promoting India and its heritage. They protect traditional arts, crafts, textiles, food etc. that have deep meaning. Knowing the origin and diversity of these products, G.I. Symbols are useful for preserving knowledge, skills and traditions. A region's history and place of origin are distinct due to the way that heritage depicts and narrates the past of each nation. Every country has centuries of traditions that have contributed to its distinct knowledge base, in addition to its way of life, and this is consistently regarded as an essential component that should be preserved. "We are not the makers of history—we are made by history," as Martin Luther King Jr , once stated. Ethnic and socioeconomic advancement, as well as cross-cultural and global progress, are all made possible by history and legacy, which are inextricably linked In December 1999, the Parliament had passed the Geographical Indications of Goods Act,1999.(Department for promotion of industry and internal trade, government of India )This Act seeks to provide for the registration and better protection of geographical indications relating to good sin India. When we were evaluating the success of GI , Handloom industries also played an eminent role .Those who were working in this sector incorporated this job into their culture. Rooted in ancient times, the handlooms of India represent an ancient cottage industry, and handloom weaving constitutes one of the richest and most vibrant aspects of Indian cultural heritage. Historically, these roots stretch back to Vedic literature, where Indian weaving styles are mentioned. The first fragments of Indian handlooms were excavated from parts of Egypt, after which traces of finely woven and dyed cotton fabrics. were found in the Mohenjo Daro (Buch et al.,2021, p:79). When a product gets a GI tag, no one else can sell the same thing with that name. This tag lasts for 10 years and can be renewed. Having a GI tag also means legal protection for the item ,it cannot be used without permission and it can be exported.

**H4 - GI tags have a significant impact on tourism and cultural heritage**

**Conceptual Framework (Figure 1)**



## **Methodology**

### **Data collection and population**

A pilot study was executed through general public in Kerala. Two hundred respondents were selected for this survey. The validity and reliability of the measurement scales were verified. Based on the feedback from the respondents, minor corrections were made to the questionnaire. The purposive sampling technique (Kothari, 2004) was employed for this research, and as mentioned above, the respondents of Kerala state selected for collecting data. A total of 1500 questionnaires were circulated through google forms with an assurance statement of privacy and anonymity of the responses. A total of 977 responses were received (65.13%); out of this, 273 were rejected due to missing data. After the aforesaid moderate rate of rejection, 704 accurate responses (72%) were considered reasonably good because of the study's nature. The sample included 312 (44.3%) female and 392 (55.6%) male respondents; 213 (30.2%) were in the age brackets of 20-30, 232 (33.3%) were in the age group of 30-40, 137(19.46%) were in the age group of 40-50 and the remaining 122 (17.32%) were 50 years of age. The majority of the respondents have an income group of below 800000 387(54.97%) majority of the respondents belongs to private sector employees 397(56.39%).

## **Measurement**

### **Heritage**

Heritage was measured adopting self-reported data, the reliability measured by using Alfa score of 0.83 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- not effective and five highly effective

### **GI Tag**

GI Tag was measured adopting self-reported data, the reliability measured by using Alfa score of 0.86 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- not influence and 5- highly influence.

### **Tourism**

Tourism was measured adopting self-reported data, the reliability measured by using Alfa score of 0.79. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- not effected and 5- highly effected.

## **Table 1 Convergent Validity**

Constru cts	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
HG1	0.86	0.7396	0.2604			
HG2	0.73	0.5329	0.4671			
HG3	0.68	0.4624	0.5376			
HG4	0.81	0.6561	0.3439			
HG5	0.69	0.4761	0.5239			
HG6	0.74	0.5476	0.4524			
HG7	0.68	0.4624	0.5376			
HG8	0.77	0.5929	0.4071	0.909	0.55	0.74
GIT1	0.65	0.4225	0.5775			
GIT2	0.84	0.7056	0.2944			
GIT3	0.88	0.7744	0.2256			
GIT4	0.63	0.3969	0.6031			
GIT5	0.65	0.4225	0.5775			
GIT6	0.72	0.5184	0.4816			
GIT7	0.76	0.5776	0.4224			
GIT8	0.61	0.3721	0.6279			
GIT9	0.84	0.7056	0.2944			
GIT10	0.91	0.8281	0.1719	0.929	0.57	0.75
TM1	0.72	0.5184	0.4816			
TM2	0.75	0.5625	0.4375			
TM3	0.69	0.4761	0.5239			
TM4	0.66	0.4356	0.5644			
TM5	0.68	0.4624	0.5376			
TM6	0.77	0.5929	0.4071			
TM7	0.89	0.7921	0.2079	0.894	0.54	0.73

**Table2 Constructs Reliability and Validity**

Variables	CA	CR	AVE
HG	0.83	0.909	0.55
GIT	0.86	0.929	0.57
TM	0.79	0.894	0.54



**Table 3 Discriminant Validity (By using AVE)**

	Square root of AVE	HG	GIT	TM
HG	<b>0.74</b>	<b>0.74</b>		
GIT	<b>0.75</b>	0.723	<b>0.75</b>	
TM	<b>0.73</b>	0.612	0.677	<b>0.73</b>

**Table 4 Model Fit Indices**

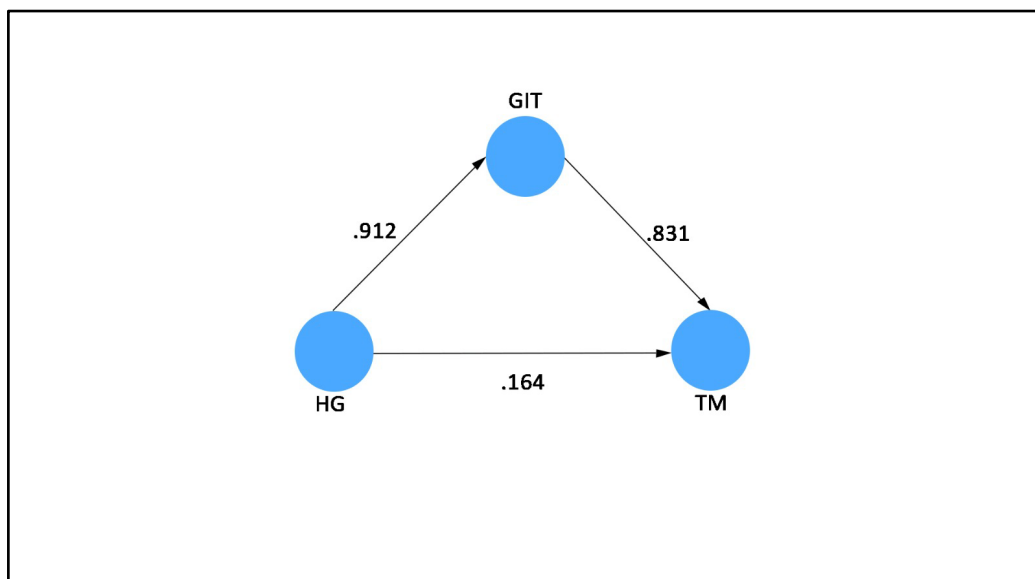
Factors	Values	Factors	Values
CMIN	2.73	DF	1
Chi-square	2.13	P Value	0.000
AGFI	.926	GFI	0.921
TLI	.912	CFI	.905
RMSEA	.017	RMR	0.021

**Analysis and Results**

All these scales were modified and validated specifically for the present research. Before testing the hypothesis, the construct validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), average variance extracted (AVE) and composite reliability (CR) was calculated. In the current study, AVE is more than 0.50, which means the observed variable’s error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. As per convergent validity, each construct is more than 0.50. AVE for HG has an average construct of 0.55, GIT has an average construct of 0.57, TM has an average construct of 0.54. Hence, we can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are > 0.9; hence, the constructs have an excellent model fit (Table 4).

**Direct Effect (Figure 2)**



**Table 5 Direct Effect**

Hypotheses	Path Relation	Original Sample	SE	T Values	P Values	Decisions
H1	HG→ TM	.164	0.018	2.896	0.00	Supported
H2	HG→ GIT	.912	0.032	29.35	0.00	Supported
H3	GIT→ TM	.831	0.036	28.43	0.00	Supported

**Hypothesis testing**

As per Aiken and West (1991), all the constructs were mean-centered prior to the mediation analysis. Three Structural Equation Models (SEM) were created to analyze the mediation effect of GIT on HG and TM by adopting the pattern as per Baron and Kenny (1986). As per the result, the direct effect observed between HG and TM ( $\beta=0.164$ ;  $p < 0.001$ ). hence H1 is accepted; The direct effect between HG and GIT ( $\beta=0.912$ ;  $p < 0.001$ ). hence H2 is accepted. The direct effect between GIT and TM ( $\beta=0.831$ ;  $p < 0.001$ ). therefore, H3 is accepted.

**Table 6 Mediation Effect**

Hypotheses	Associations	Direct Effect	Indirect Effect	Total Effect	VAF	Mediation
H4	HG→ TM	.164	0.757	0.921	82.19%	Full mediation

**Mediation Analysis**

The mediation analysis involves establishing the theoretical indirect relationships between constructs that is the mediating variable modify the direct path. Calculating the mediating effect enable the identification of through total relationship between the constructs. The significance of indirect effect is determent by the variance accounted for statistics (VAF) which calculate the influence of indirect effect on dependent variable or how much the dependent variable is explained by the indirect effect through mediator variable here the direct effect between HG and TM is 0.164, indirect effect 0.757 and total effect 0.921 and here the VAF is 82.19% so here GI Tag have a full mediation effect on Heritage on Tourism . For hypothesis it is found that VAF value is more than 80% that shows full mediation and hence H4 is accepted.

### Discussion and Conclusion

GI tags play an important role in protecting and developing well-defined traditional information, social heritage, and unique creation techniques for specific locations. It helps to preserve ancient strategies and skills that have matured over centuries. GI tags help to maintain the product's reputation and its quality. It also increases sales, attracts new customers and tourists, and leads to investment and preservation of traditional knowledge. The undeniable connection between GI tag tourism and heritage is evident. The emergence of novel GI tag products has opened doors for the promotion of tourism and the conservation of heritage. This research delves into the correlation between GI tag tourism and heritage, highlighting their mutual reinforcement in fostering the growth of a locality.

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## **ROLE OF FAMILY SUPPORT IN THE RELATIONSHIP BETWEEN EFFECTIVENESS OF GENDER BUDGETING AND WOMEN EMPOWERMENT**

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### **Abstract**

**Purpose** - The purpose of this study is to evaluate the impact of gender budgeting initiative of Government of Kerala (Life mission) on women empowerment. The study also assesses moderation effect of family support between the impact of gender budgeting initiative of Government of Kerala (Life mission) on women empowerment.

**Design/Methodology/Approach** - Aim of the study was to assess the moderation role of family support of life mission beneficiaries in the relationship between gender budgeting and women empowerment. Sample size of the study was 403. Data has been collected using purposive sampling method from the women beneficiaries of life mission project in Kerala

**Findings** - Aiken and West (1991) state that all constructs were averaged prior to the mediation study. To examine the mediating effect of SM on CC and BU, three structural equation models (SEM) were created using Baron and Kenny's (1986) model. The results show a direct relationship ( $\beta = 0.29$ ;  $\xi < 0.001$ ) between CC and BU. Therefore, H1 is accepted, indicating a direct relationship between CC and SM ( $\beta = 0.31$ ;  $p$  and  $lt$ ;  $0.001$ ). Therefore, H2 is accepted. There is a direct relationship between SM and BU. Therefore, H3 is accepted. Finding a mediating effect allows us to determine the overall relationship between constructs. In this case, the direct effect between CC and BU is 0.29, the indirect effect is 0.0806, and the total effect is 0.37. The variability calculated in the statistics (VAF) is 21.7%, which suggests that content creators are partially mediated by the social media ecology in the rise of the brand. The VAF, which calculates the impact of the indirect effect on the dependent variable, or the amount that the dependent variable explains through the mediating variable, determines the significance of the indirect effect. Since the VAF score of the hypothesis is between 20% and 80%, indicating partial mediation, H4 is accepted.

**Key words** - Gender budgeting, Life Mission Project, Women Empowerment, Gender equality

### **Introduction**

Gender budgeting is a tool aimed at advancing women's empowerment by ensuring that government budgets address gender inequalities and ensure gender equality. It involves evaluating how public funds are allocated and spent to address the specific needs and priorities of female category. By integrating gender perspectives into budgetary decisions, gender budgeting can help reduce gender disparities in

areas such as education, healthcare, employment, and social protection. The term Gender Budget is a new addition and a unique concept in Govt. Budgeting. In the age of economic globalization the term “Gender Budget” has very popular. Discussions on gender issues, such as women's empowerment, gender development, gender equality, and gender justice, have taken place in practically all countries in the world today. Since women are typically viewed as having a lower status than men in most societies. Many actions have been taken in this regard on a national and international level. Gender budgeting is one innovative methodological strategy among many that ensures gender justice and empowers women. Empowerment of women is one issue which has been highlighted much in the recent years. Concerns about the women’s overall empowerment are prevalent. The unfortunate thing, though, is that the idea of fostering a welcoming environment for women- one in which they have the freedom to express their opinions, have a voice, and be treated equally with men has not yet materialized. Public expenses and revenues though budgets are dissected on the basis of genders. But budgets can have differential impact on men and women. Additionally, gender budgeting does not suggest that the feminist group receive separate funding from the government. Instead, gender budgeting is the process of allocating funds and converting gender commitments in to financial obligations. It places a strong emphasis on rearranging and refocusing programs by considering them from a gender perspective. Economic empowerment is a process by which women increase their right to economic resources and power to make decisions that benefit themselves, their families and their communities. Economic empowerment encourages the women to build better livelihood, to earn more income, to create businesses that provide jobs to women from their family support. This ensures provision of training, employment and income generation activities with both forward and backward linkages with the ultimate objective off making all women economically independent and self- reliant.

Gender budgeting is a policy approach that seeks to integrate gender perspectives into budgetary decisions to address gender inequalities and promote women's empowerment. Several studies have examined the relationship between gender budgeting and family support, highlighting its potential impact on various aspects of family well-being. For example, research by Smith et al. (2018) found that countries implementing gender budgeting measures tend to allocate more resources to social services such as healthcare, education, and childcare, which can directly benefit families, particularly women and children. Additionally, gender-sensitive budgeting can lead to the implementation of policies aimed at supporting working parents, such as paid parental leave and affordable childcare services, thus facilitating better work-life balance and family cohesion (Johnson & Gupta, 2020). Furthermore, studies suggest that gender budgeting can contribute to reducing gender disparities in access to social protection programs, ensuring that vulnerable families, including single-parent households headed by women, receive adequate support (Jones & Lee, 2019). Overall, the literature underscores the potential of gender budgeting to enhance family support systems and promote gender equality within households and communities.

LIFE Mission is a Kerala state-level programme that provides financial assistance to women in Kerala who are eligible for the land holdings and livelihoods schemes. So the government also selects the women for beneficiary of life mission project. Because, in this generation women are economically independent. It is massive housing campaign to build houses for families without land or houses. Emphasis will be on financial empowerment and providing means of life scheme project and this gives a helpful for the family those who are suffering without land or house.

### **Literature Review**

#### **Relationship between gender budgeting (GBL) and women empowerment (WE)**

Public expenses and revenues though budgets are not dissected on the basis of genders. But budgets can

have differential impact on men and women. Gender budgeting also does not indicate that the feminist group be given separate allocations of government budgets. Rather gender budgeting is the allocation of resources and translation of gender commitments to budgetary commitments. It stresses on reprioritization and reorientation of programmes by looking through gender perspective.

IJDRC defines Gender Budgeting in their own words as “Gender Budget initiatives how government raises and spend public money, with the aim of securing gender equality in decision making about public resource allocation and gender equality in the distribution in the impact of government budgets, both in their benefited and their burdens. The impact of government budgets on most disadvantages groups of women is a focus of special attention” (IJDRC, 2001).

The budget is a financial representation of a nation's social and economic policies as well as its development objectives. The reality of the disparities between men and women in society is highlighted by the gender issue (Hall & et al, 2004). When it comes to gender and women's issues, people frequently respond by saying that they are not as significant as other challenges that are facing our society, such as poverty, unemployment, and violence.

Gender budgeting as it relates to government at all levels does not refer to a separate budget for women but is an analytical tool that examines the government budget to detect its differential impact by gender and advocates higher priorities for programs and projects to meet needs of gender disadvantages that women face (Chant & S. H. 2007).

The concept of gender budgeting arose from feminist critique, which argue that women must be given an environment in which they can flourish and dwell in an atmosphere of security. The whole concept of gender budgeting revolves around governmentally studies which makes the use of budgeting to deal with gender related issues (Burchell, Gordon et al.1991, Foucault 1991, Cruikshank 1999, Miller and Rose 2008, Dean 2009, Mennicken and Miller 2012). It is sought to act as the possibility to create provisions that would enable calculative (Das, Mahanta,2016).

Gender budgeting therefore looks at the government budget from a gender perspective to assess how well it meets the needs of women in the areas of health, nutrition, education, employment, etc. Gender budgeting does not seek to create a separate budget but seeks positive action. to meet the specific needs of women.

The term Gender Budgeting is a new and unique complementary concept in government. Set a budget. In the era of economic globalization, the term “gender budget” is very popular. Today, in most countries of the world, discussions have taken place on gender issues such as women's empowerment, gender development, gender equality, gender equality, etc. Because in most societies, women are considered to be Empowering Women through Gender Budgeting in India, with reference to Assam PJAE, 17 (7) (2020) 10698 disadvantage compared to men.

### **H1: Gender budgeting (GBL) and women empowerment (WE) are significantly related Relationship between gender budgeting (GBL) and women empowerment (WE) with moderation effect of family support (FS)**

The literature on gender-based budgeting (GBB), women's empowerment, and the moderating effect of family support provides valuable insights into the complex interrelationships between public policy, familial dynamics, and gender equality outcomes. Studies have shown that GBB initiatives are instrumental in addressing gender disparities in resource allocation, leading to enhanced access to education, healthcare, and economic opportunities for women (Budlender & Hewitt, 2017). However, the effectiveness of these initiatives often depends on the level of support women receive from their families. Research indicates that women in supportive family environments are better positioned to leverage opportunities created by GBB policies, overcoming barriers such as limited access to financial



resources or restrictive gender norms (Kabeer, 2005).

Furthermore, the literature underscores the need for a comprehensive, multi-dimensional approach to women's empowerment that acknowledges the moderating effect of family support alongside broader structural and institutional factors. By recognizing the influence of family dynamics, policymakers can develop more effective strategies to promote women's empowerment through GBB initiatives (Duflo, 2012). This entails not only integrating gender perspectives into budgetary processes but also addressing underlying social norms and power dynamics within families that may hinder women's agency and decision-making autonomy (Sen, 1999). Overall, the literature highlights the importance of considering family support as a crucial factor in shaping women's access to resources and opportunities within the context of GBB and women's empowerment efforts.

## **H2: Gender budgeting (GBL) and women empowerment (WE) are significantly related with moderation effect of family support**

### **Family support (FS) and women empowerment (WE)**

Policies and programs that support families are essential in promoting women's empowerment because they help women overcome obstacles and difficulties that arise in the context of families (Bhattarai, 2009) The role of family support in women's empowerment is significant as it provides a supportive environment that enables women to overcome barriers, fulfill their potential, and achieve greater autonomy and agency within the family and society. Overall, family support programs are instrumental in promoting women's empowerment by addressing systemic barriers, providing resources and support, fostering social networks, and empowering women to make choices that enhance their well-being and agency within the family and society (Khan DG, Ghafoor A, Dean A, 2015). Family support is crucial for women's empowerment because it provides a nurturing environment where women can access resources, receive encouragement, and develop the skills needed to assert their rights and pursue their goals (Golla M, Malhotra A, Marie A, Icrw G (2011) Family support provides an economic and emotional support for the women's for their empowerment. empowering women in the current world requires a multi-faceted approach that addresses systemic barriers, promotes gender equality, and creates opportunities for women to fully participate and contribute to society. It involves collaboration between governments, civil society, the private sector, and communities to create an enabling environment where women can thrive and achieve their full potential (Robinson-Pant A 2014). Women's empowerment includes activities that include social guidance, skills guidance, facilities or social assistance, including the development of productive economic enterprises, which are aimed at increasing women's abilities and needs and increasing their income.

### **H3: Family support (FS) has significant impact on women empowerment**

#### **Role of family support in the relationship between gender budgeting and women empowerment**

Family support, gender budgeting, and women's empowerment are interconnected in several ways. Family support policies and programs, such as childcare subsidies, parental leave, and healthcare services, are often influenced by gender budgeting principles. Gender budgeting ensures that budget allocations prioritize the needs of different genders within families, leading to more equitable and inclusive support systems. Family support plays a critical role in women's empowerment by providing resources, social support, and opportunities for women to fulfill their potential. Access to family support services such as education, healthcare, and economic assistance can enhance women's well-being, increase their agency within the family, and enable them to pursue education, employment, and leadership opportunities. Gender budgeting contributes to women's empowerment by ensuring that government budgets address gender disparities and promote equality. By allocating resources to programs and policies that support women's rights, economic opportunities, and social inclusion, gender

budgeting facilitates women's empowerment at the societal level. The relationship between family support, gender budgeting, and women's empowerment is dynamic and interconnected. Family support programs influenced by gender budgeting principles contribute to women's empowerment by addressing their specific needs within the family context. In turn, women's empowerment enhances their ability to advocate for gender-responsive policies, including those related to family support and budget allocations. Family support, gender budgeting, and women's empowerment are interrelated factors that contribute to creating an enabling environment where women can thrive and achieve their full potential. By addressing gender disparities in resource allocation and promoting supportive policies and programs, societies can empower women to participate fully in social, economic, and political life.

**H4: Family support (FS) has significant relationship on effectiveness on gender budgeting and women empowerment**

**Gender budgeting (GBL) and family support (FS)**

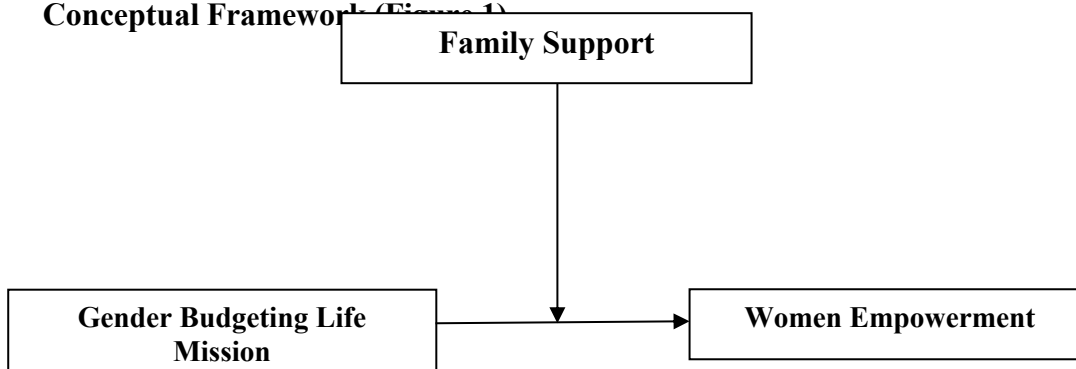
The practice of incorporating a gender viewpoint into budgetary planning, formulation, implementation, and monitoring is known as gender budgeting (Stotsky 2016: 4). This. The objective of this study is to examine the disparate effects that budgetary allocations have on men and women and to guarantee that resources are distributed in a manner that advances women's empowerment and gender equality (West and Zimmerman 2002). In order to achieve gender equality goals, it entails evaluating government finances to determine their impacts on gender differences and modifying policies and spending accordingly. Gender budgeting ensures that financial resources are allocated to meet the unique needs and priorities of various family members, especially women and children, which can have a big impact on family support (Holmes and Marra 2001). Gender budgeting and family support have a complex and interwoven relationship. The goal of gender budgeting is to make sure that financial resources are allocated to meet the distinct demands and objectives of the various genders in society by assessing and modifying them. Gender budgeting, when used in family support policies and programs, can result in more fair and successful interventions that have a variety of positive effects on families. In general, gender budgeting is essential in helping to create family support policies and programs that are more equal, inclusive, and sensitive to the various needs of every family member. This builds better and more resilient communities and families (Wharton, AmyS.2006) Monitoring the gender-specific effects of budgetary policies and expenditures is crucial, as are prioritizing initiatives to lessen discrimination against women in the budget's benefit-incidence ratio (Banerjee, 1999).

**H5: Gender budgeting (GBL) and family support (FS) are significantly related**

Objectives

The major aim of the study is to evaluate the impact of gender budgeting life mission on women empowerment with a moderation effect of family support

**Conceptual Framework (Figure 1)**



A pilot study with a sample of 100 women beneficiaries of life mission project has been conducted prior to the main study. Measurement scales were verified through checking reliability and validity. Based on the data collected experience of the pilot study minor changes were made to the data collection instrument. Questionnaire for the main study is used after necessary modification after the pilot study.

**Data Collection and Sampling**

A total of 800 questionnaires is circulated among the sample units with an assurance of statement of privacy and anonymity. Purposive sampling method is used for selecting the samples. Out of 521 responses (65.12%) received, 118 were rejected due to missing data. After the moderate rate of rejection, 403 accurate responses (80.07%) were considered good because of study’s nature. The sample include 106 (26.3%) in the age group of less than 35, 176 (43.6%) were in the age brackets of 35-50, 68 (16.87%) were in the age group of 50-60, 53(13.15%) were in the age group of above 60 . The majority of the populations arehaving the qualification below graduates 183(45.4%). The monthly income of majority of the respondents are below 50000 163 (40.4%).

**Measurement**

**Gender Budgeting Life Mission**

Gender Budgeting Life Mission was measured adopting self-reported data, the reliability measured by using Alfa score of 0.76 and normality tested by using skewness and kurtosis it is in between–1.96and+1.96. Here5-point Likert scale was used; 1-not influence and5 highly influence

**Family support**

Family support was measured adopting self-reported data; the reliability measured by using Alfa score of 0.79 and normality tested by using skewness and kurtosis it is in between–1.96and +1.96. Here five-point likert scalewasused;1- highly disagree and5-highly agree.

**Women empowerment**

Women empowerment was measured adopting self-reported data, the reliability measured by using Alfa score of 0.83. and normality tested by using skewness and kurtosis it is in between–1.96and+1.96.5-pointLikertscalewas used; 1-highly disagree and5- highly agree.

**Table 1 Convergent Validity**

Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
GBL1	0.69	0.4761	0.5239			
GBL2	0.78	0.6084	0.3916			
GBL3	0.73	0.5329	0.4671			
GBL4	0.64	0.4096	0.5904			
GBL5	0.85	0.7225	0.2775			
GBL6	0.88	0.7744	0.2256			
GBL7	0.73	0.5329	0.4671			
GBL8	0.79	0.6241	0.3759	0.9	0.58	0.76
FS1	0.85	0.7225	0.2775			
FS2	0.89	0.7921	0.2079			
FS3	0.77	0.5929	0.4071			

FS4	0.72	0.5184	0.4816			
FS5	0.68	0.4624	0.5376			
FS6	0.64	0.4096	0.5904			
FS7	0.73	0.5329	0.4671			
FS8	0.76	0.5776	0.4224			
FS9	0.83	0.6889	0.3111			
FS10	0.88	0.7744	0.2256			
FS11	0.84	0.7056	0.2944	0.94	0.61	0.78
WE1	0.89	0.7921	0.2079			
WE2	0.91	0.8281	0.1719			
WE3	0.64	0.4096	0.5904			
WE4	0.69	0.4761	0.5239			
WE5	0.65	0.4225	0.5775			
WE6	0.72	0.5184	0.4816			
WE7	0.79	0.6241	0.3759	0.91	0.57	0.75

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
GBL	0.76	0.9	0.58
FS	0.79	0.94	0.61
WE	0.83	0.91	0.57

**Table 3 Discriminant Validity (By using AVE)**

	Square root of AVE	GBL	FS	WE
GBL	<b>0.76</b>	<b>0.76</b>		
FS	<b>0.78</b>	0.62	<b>0.78</b>	
WE	<b>0.75</b>	0.69	0.71	<b>0.75</b>

**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.11	DF	1
Chi-square	2.66	P Value	0.000
AGFI	.905	GFI	0.931
TLI	.912	CFI	.909
RMSEA	.024	RMR	0.016

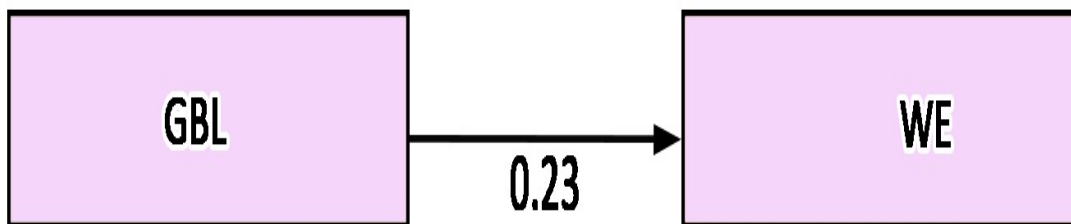
**Analysis and Results**

Scales used for the study were modified and validated specifically for the present research. Construct validity was established through Confirmatory Factor Analysis (CFA) before testing the hypothesis. Using the formula recommended by Fornell and Larcker (1981), average variance extracted

(AVE) and composite reliability (CR) was calculated. In the study AVE is greater than 0.50, which means the observed variable's error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. For convergent validity, each construct is more than 0.50. AVE for GBL has an average construct of 0.58, FS has an average construct of 0.61, We have an average construct of 0.57. Hence one can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. In the results SRMR is < 0.08; minimum discrepancy is < 5; root mean square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are > 0.9; hence, the constructs have an excellent model fit (Table 4).

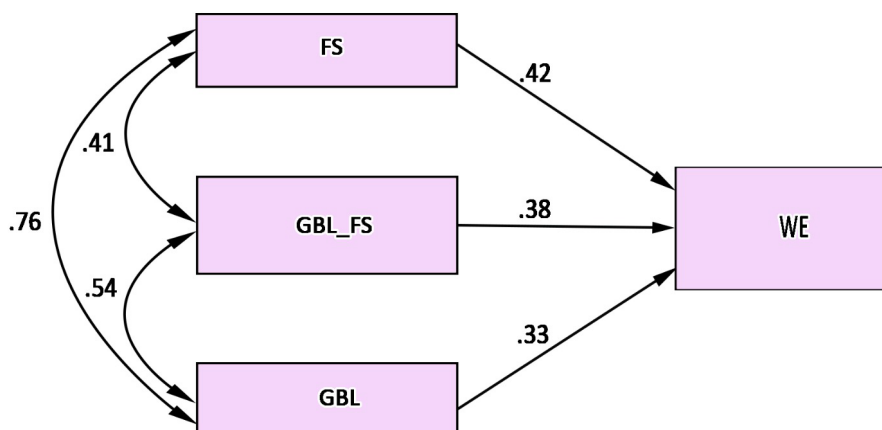
**Direct Effect (Figure 2)**



**Table 5 Direct Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H1	GBL → WE	0.23	0.041	3.69	0.00	Supported

**Moderating Effect (Figure 3)**



**Table 6 Moderation Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H2	GBL → WE	0.33	0.092	12.6	0.000	Supported
H3	FS → WE	0.42	0.016	14.82	0.000	Supported
H4	GBL → FS → WE	0.38	0.072	12.94	0.000	Supported

**Hypothesis testing**

As per Aiken and West (1991), all the constructs were mean-centered prior to the moderation analysis. Three Structural Equation Models (SEM) were created to analyze the moderating effect of FS on GBL and WE by adopting the pattern as per Baron and Kenny (1986). As per the result, a substantial positive correlation is observed between GBL and FS ( $r=0.76$  and  $p < 0.01$ ), hence H5 is accepted;

**Moderator - CA**

Figure 3, evaluated the independent variable’s impact on the dependent variable; measured the impact of moderating variable on the dependent variable; verified the interaction effect and its impact on the dependent variable, while Figure 2 exhibits, direct impact of GBL to WE ( $\beta = 0.23$ ;  $p < 0.01$ ); thus, H1 is accepted. Figure 3 shows that the moderation effect of FS with the relationship of GBL on WE. The GBL on WE shows a positive impact ( $\beta = 0.33$ ;  $p < 0.01$ ). Therefore, H2 is accepted. The moderator FS as has a positive impact on WE ( $\beta=0.42$ ;  $p < 0.01$ ). Therefore H3 is accepted. The interaction term between GBL and FS was positively connected to WE ( $\beta=0.38$ ;  $p < 0.01$ ). Therefore, H4 is accepted.

**Implications of the study**

Understanding resource allocation, policy effects on families, and the efficacy of initiatives aimed at furthering gender equality are all significantly impacted by research on gender budgeting, women's empowerment, and family support. Through scrutinizing the distribution of expenditures across various sectors and evaluating the particular initiatives implemented to bolster women's agency and support families, scholars may evaluate the effectiveness of policies and push for modifications that foster increased parity and inclusiveness. Such research can also illuminate the ways in which location, ethnicity, and socioeconomic status intersect with gender, offering insights into the varied needs of women and families in varied situations. Life Mission Project is a gender budgeting initiatives of government of Kerala and the present study assess the effectiveness of life mission project and its impact on women empowerment with a moderating effect of family support. The study assessed that the ender budgeting initiative; life mission project is significantly contributing towards women empowerment and the family support has a moderating effect on the relationship between effectiveness of ender budgeting and women empowerment.

**Discussion with conclusion**

Women's empowerment, family support, and gender budgeting are essential elements in initiatives to advance gender equality and create inclusive societies. Governments may foster conditions where women and men have equal opportunity to prosper and contribute to social, economic, and political growth by enacting gender-responsive budgeting procedures, funding family support policies, and giving women's empowerment projects top priority. Policymakers, private sector companies, civil society organizations, and people must work together in these efforts to eliminate systemic impediments and advance substantive change toward women's empowerment and gender equality.

Government of Kerala had several initiatives and projects aimed at various aspects of societal development. One among that notable initiative is the "Life Mission" project which aims to provide housing for the homeless and landless in Kerala. This initiative aims to address the housing needs of the economically weaker sections of society by constructing homes and providing land ownership. The project involves collaboration between the state government, local self-government bodies, and various stakeholders to ensure the successful implementation of housing schemes and programs.

The "Life Mission" project aligns with the government's commitment to inclusive development and social welfare, particularly targeting marginalized and vulnerable populations. Through this initiative, the Kerala government seeks to improve living conditions, promote social equity, and enhance the overall quality of life for women. The project embodies the government's vision of creating a more equitable and sustainable society where every individual has access to basic amenities and opportunities for a dignified life of women

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**EXAMINING THE INFLUENCE OF SOCIO-ECONOMIC FACTORS ON INTERNATIONAL STUDENT MIGRATION INTENTIONS: A MODERATION ANALYSIS OF CULTURAL ADAPTATION**

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**Abstract**

**Purpose** - The State of Kerala has been witnessing an increase in students moving to Europe, Canada, Australia, and other countries for higher studies, and eventually settling there. The number of Indian students abroad was 40 lakhs in 2012 and is expected to cross 75 lakhs in 2025. There is a 68% increase in the number of students going abroad for higher studies (Ministry of Education before the Parliament). The Kerala High Court recently attributed the reason behind the trend of youngsters leaving to the lack of infrastructure and aesthetic appeal in Kerala's cities. This paper explores the Impact of Socio-Economic Factors on International Student Migration Intentions: A Moderation Analysis of Cultural Adaptation. Socio economic status plays a vital role in decision and ability to migrate for education from India, and the adaptation to new culture plays a crucial role in determining the success in studies and overall experience of international students. Cultural adaptation partially moderates the impact of SES disparities by helping students overcome challenges associated with studying abroad, but it does not eliminate the initial influence of SES on the decision to migrate.

**Design/methodology/approach** - Research conducted on as sample of 414 students undergoing higher studies in USA, Cannada, Australia and China and all were Keralites. The study measured their SES, assessed their cultural adaptation factors, and gauged their intentions to migrate for higher studies. Statistical analysis was performed to determine whether SES along with cultural adaptation effects the student migration.

**Findings** - In this research, a substantial association was established between variables such as socio-economic status and student migration (factor=.31), SES and cultural adaptation. The research validates that the social economic status along with cultural adaptation influences the migration of Keralites students for higher studies to places like USA, China, Australia, Canada. On testing the hypothesis, the result shows that the dependent



variable, namely socio-economic status, is substantially predicted by student migration directly and through specific moderating variable cultural adaptation at a 95 % level of confidence.

**Originality/value** – This study explores the impact of socio-economic factors and student intention for migration through the moderating variable of adaptation to the new culture of the other country which has not been scrutinized theoretically and tested empirically on the context heavy drain of students from Kerala to foreign countries for higher studies.

**Key Words** – SES- Socio economic status, Cultural adaptation, Student migration, international migration, career development

### **Introduction**

Students with higher socioeconomic status might have more opportunities for pre-departure cultural preparation, which can positively impact their cultural adaptation. However, students from lower socioeconomic backgrounds who excel at cultural adaptation may still have successful international experiences. It's essential to study the interplay of these factors when studying international student migration, as it can provide a more nuanced understanding of the reasons behind students' decisions to study abroad and their overall experiences. The decision-making process of international student migration is influenced by various factors, notably socio-economic status (SES) and cultural adaptation. SES, encompassing financial resources, education level, and social standing, plays a pivotal role in shaping students' intentions to study abroad. High SES individuals often possess greater resources to support their migration aspirations, while lower SES individuals might face more barriers due to financial constraints. Cultural adaptation is crucial in predicting migration intentions (Chan Y W ,2023). Students from cultures with a closer resemblance to the host country might experience smoother adaptation, enhancing their willingness to migrate. Conversely, individuals from culturally distant backgrounds might face challenges in adaptation, impacting their migration intentions. Several studies (Tupa, Magdalena; Strunz, Herbert) have shown the significance of SES and cultural adaptation in international student migration intention. However, the intersectionality of these factors, along with other elements like language proficiency, family influence, and political climate, also plays a significant role and requires further exploration. This field of study continues to evolve, offering insights into the multifaceted nature of international student migration intentions and highlighting the need for more inclusive policies and support systems for students from diverse socio-economic and cultural backgrounds.

### **Literature review**

#### **Socio Economic Status and International Student Migration**

The migration of students has seen a significant rise in recent years, with individuals worldwide, particularly those from underdeveloped nations, moving to more advanced countries in pursuit of quality education (Sr. Prafula et al.). India has witnessed a substantial increase in population migration from rural to urban areas over time. According to Dr. Vishal P et al. (2021), socioeconomic status plays a crucial role in student migration, serving as a determining factor that can either pose a risk or act as a protective element. Socioeconomic status, a



measure of a student's overall social and economic standing, is often positively correlated with education, income, and occupation, emerging as primary factors influencing this trend (Elizabeth H. 2014).

The migration of students from one place to another, and even between countries, is driven by the pursuit of improved academic and career development opportunities. This phenomenon is particularly pronounced in the modern age, as noted by Victoria Rolfe and Kajsa Yang Hansen(2022). Numerous empirical studies investigating the relationship between socioeconomic position and variations in academic achievement and well-being commonly utilize indicators that amalgamate parents' income, education, and occupation into a composite variable (Hauser and Huang, 1997). Factors such as parents' educational background, employment status, and access to various loans are also influential in this regard (Bradley and Corwyn, 2002).

The comprehensive socioeconomic status scale has a substantial impact on the academic achievement of migrating students across participating nations (Nonoyama-Tarumi, 2008). While immigrant students may exhibit lower academic performance, this correlation is indirect and more influenced by their living conditions than that of native students. Authors like Smith and Bradley (2002) emphasize the significance of socioeconomic status as a predictor of achievement, underscoring that immigrant students may indeed have poorer results due to challenging home conditions.

Examining how socioeconomic factors and migration affect students' reading proficiency, Entorf and Lauk (2008) stress the importance of considering socioeconomic position as a composite variable. In many nations, accounting for socioeconomic position minimizes performance gaps between native-born and foreign-born students, especially among median and top-performing pupils. OECD library research indicates that socioeconomic disadvantage explains differences between students with and without an immigrant background in well-being, though this link tends to be weaker compared to its association with academic outcomes. Consequently, it is hypothesized:

**H1: There is a significant impact of Socio-Economic Status directly on Student migration**

**H2: There is a significant impact of Socio-Economic Status on student migration with moderation effect**

### **Cultural Adaptation and International Migration Intention of Students**

The incorporation of both factual and virtual activities can significantly contribute to the socio-cultural adaptation of migrant students, aiding them in becoming familiar with their new environment. Sharing their cultural background with classmates and fostering social activities and communication skills, especially among students with migrant backgrounds, proves beneficial (Tarih Kultur, Yaroslav Vovchok, 2019). Addressing challenges faced by immigrant students, such as cultural differences and language barriers, can be achieved through language support, academic assistance, family involvement, intercultural adaptation, and peer learning (Nayir et al., 2021).



Utilizing interactive teaching methods and involving families, peers, and organizations can contribute to the successful integration of migrant children into the host country's culture and educational system (N. M. Komarova and T. F. Suslova, 2022). Recognizing the need to promote tolerance and integration, especially focusing on the cultural and instrumental integration of migrants, efforts are being made to create a more inclusive and welcoming environment for migrants (Valeriy A. Achkasov & Marya S. Rozanova, 2013).

Sociocultural adaptation shows a positive predictive relationship with general well-being, subjective well-being, social well-being, and psychological well-being among immigrant students. The study also identifies a negative predictive relationship between sociocultural adaptation and the presence of meaning in life, emphasizing the importance of understanding factors influencing the well-being and experiences of immigrants in a new country (Érica Henke Garcia Martinet, Bruno Figueiredo Damásio, 2021). Recognizing the link between coping behavior and acculturation experiences is crucial for promoting the well-being and mental health of immigrants in a new country, considering culturally preferred coping patterns and the impact of cultural integrations on migrants' psychological adaptation (Ben C.H. Kuo, 2014).

For foreign students adapting to a foreign language and multicultural society, a tolerant attitude, readiness to accept cultural diversity, and the ability to engage in intercultural interaction are vital. This adaptation is essential for the success of foreign students' education in a new socio-cultural environment (Tamara Berezina et al., 2020).

Indian international graduate students face significant challenges in adapting to a new cultural and academic environment in the United States. However, they also demonstrate resilience in response to these challenges, with supportive relationships and positive attitudes identified as key factors for their adaptation and success in the new environment. This underscores the importance of providing support and resources for international students to facilitate their adaptation and success in a foreign academic setting (Mukthyala, 2013; Miqdad Sulaiman & Dr. Zahoor Ahmad Lone, 2023). Hence, it is hypothesized:

**H3: There is a significant impact of cultural adaptation on student migration.**

### **SES Together with Cultural Adaptation Influences the Student Intention for International Migration**

The factors influencing the inclination of Indian students in sciences and engineering to pursue international mobility are multifaceted, encompassing personal and family background, university-related elements, social networks, and preferences for living locations. The choice of university, field of study, and career aspirations emerge as pivotal factors driving students' aspirations to relocate abroad (Metka Hercog & Mindel van de Laar, 2017).

Historically, the oil boom in Gulf countries during the 1970s triggered a significant surge in migration from Kerala, particularly among the youth attracted by opportunities in the Middle East. Despite the acknowledgment that family, friends, and media influence migration awareness, there remains a strong aspiration among Kerala's youth to seek job opportunities abroad (Sulaiman KM and R B Bhagat, 2021). The growing trend of Indian



students pursuing higher education abroad has contributed to the establishment of diaspora communities in host countries, thereby impacting the formation of diaspora.

The COVID-19 pandemic has presented challenges for migrant students, introducing issues such as compromised learning experiences, disruptions in placement opportunities, inadequate digital resources, and increased pressure to repay loans (Dr. Zahoor Ahmad Lone). The rising influx of students migrating for education is driven by factors like wages and the perceived quality of education (Dr. Vishal P. Deshmukh, & Mrs. Sankpal S.V, 2022).

The study suggests that the life circumstances of international students, including receiving scholarship aid, participation in optional practical training, and applying for temporary work visas, are significantly correlated with their choice of geographic location upon graduation. This information proves valuable for academic institutions and government agencies in comprehending and anticipating international student migration behavior, facilitating the development of strategic policies for international education (Jenny McGill, Doctoral Candidate, King's College London, UK). Hence, it is hypothesized:

**H4: There is a significant impact of the product of socio-economic status and cultural adaptation on student migration**

### SES and Cultural Adaptation

The term socioeconomic status is intricate, encompassing both independent characteristics such as income or education and subjective aspects (Gines Navarro et al., 2020). Cultural adaptation is defined as the socio-cultural and psychological behavioral changes resulting from the interaction of two or more cultural groups and/or individuals (Berry, 1992). Cross-cultural adaptation originated in the United States, particularly during periods of significant migration, leading to varied opinions on the concept (Malcolm Lewthwaite, 1996). Lewthwaite observed that migrated students were making adjustments to a new culture, experiencing high levels of cross-cultural anxiety, frustration, and misunderstandings.

Man Luo (2021) investigated factors influencing cultural adaptation and found that, in addition to demographic variables like age, gender, and marital status, other factors such as personality, adult attachment style, and cognitive appraisal also play a role in the cultural adaptation of migrated students. Strategies like conducting cultural exchange activities and providing psychological counseling rooms are suggested to help cope with the challenges of adapting to a new culture (Oksana Kilichenko et al., 2019). Creating ease in adaptation for migrant students can be achieved through organizing social activities within institutions (Oksana Kilichenko et al., 2019).

The relationship between psychological capital and cultural adaptation influences the social and cultural adaptation of migrated students (En Guo Wang et al., 2022). Due to diverse characteristics like age and gender, students often encounter difficulties in adjusting to the new culture of the migrated country. Therefore, well-



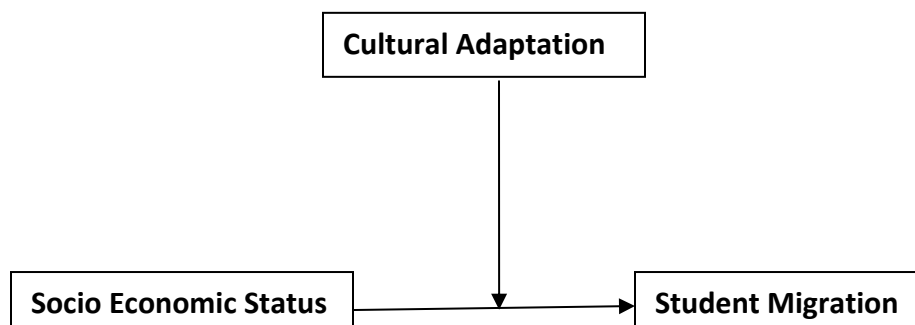
designed international interventions are introduced to assist students in adapting to the new culture through academic and co-curricular activities. Universities play a crucial role by providing ample opportunities for migrated students to interact with teachers, peers, and colleagues, facilitating their adjustment to the cultural diversity of the host country (Anna & Alexandra, 2020). Hence, it is hypothesized:

**H5: There is a significant relationship between SES and Cultural adaptation**

### Objectives

The purpose of this study is to evaluate the impact of Socio-Economic Status on Student Migration with a moderation effect of Culture Adaptation of Indian under graduate and graduate students for their graduation and post-graduation outside India.

### Conceptual Framework (Figure 1)



### Pilot Study

Prior to conducting the main study, a pilot study with a sample of 150 respondents were chosen for the study, with 100 under graduate students and 50 graduate students undergoing their graduation and masters in abroad from Kerala. To verify the removal of any measurement ambiguities, the validity and reliability of the scales used for measurement were checked. Few modifications were made to the questionnaire based on suggestions offered by the respondents.

### Data Collection and Sampling

Non probability snowball sampling method is used for collecting the data by connecting through students mainly focusing on students intended to migrate four countries USA, Canada, Australia and China. A total of 800 questionnaires were circulated through google forms to the respondents of students intended to migrate with an assurance statement of privacy and anonymity of the responses. A total of 517 responses were received (64.6%); out of this, 103 were rejected due to missing data. After the aforesaid moderate rate of





rejection, 414 accurate responses (80.07%) were considered reasonably good because of the study's nature. The sample included 223 (54.8%) male students 91 (46.13%) female students trying for migration. The respondents intention for migration 96 to USA (23.18%), 124 to Canada(29.9%) 117 to Australia (28.2%) and 77 to China (18.5%).

### Measurements

#### Socio Economic Status

Socio Economic Status was measured adopting self-reported data, the reliability measured by using Alfa score of 0.901. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- strongly negative and strongly positive.

#### Cultural Adaptation

Cultural Adaptation was measured adopting self-reported data, the reliability measured by using Alfa score of 0.816. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disadaptive and 5- highly adaptive.

#### Student Migration

Student migration was measured adopting self-reported data, the reliability measured by using Alfa score of 0.711. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

**Table 1 Convergent Validity**

Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
SES1	0.86	0.7396	0.2604			
SES2	0.89	0.7921	0.2079			
SES3	0.75	0.5625	0.4375			
SES4	0.91	0.8281	0.1719			
SES5	0.88	0.7744	0.2256			
SES6	0.83	0.6889	0.3111			
SES7	0.78	0.6084	0.3916			
SES8	0.73	0.5329	0.4671			
SES9	0.79	0.6241	0.3759	0.95	0.68	0.82
CA1	0.93	0.8649	0.1351			
CA2	0.89	0.7921	0.2079			
CA3	0.71	0.5041	0.4959			
CA4	0.88	0.7744	0.2256			
CA5	0.86	0.7396	0.2604			
CA6	0.79	0.6241	0.3759			
CA7	0.76	0.5776	0.4224			





CA8	0.73	0.5329	0.4671			
CA9	0.91	0.8281	0.1719			
CA10	0.89	0.7921	0.2079			
CA11	0.84	0.7056	0.2944	0.96	0.703	0.84
SM1	0.83	0.6889	0.3111			
SM2	0.78	0.6084	0.3916			
SM3	0.79	0.6241	0.3759			
SM4	0.88	0.7744	0.2256			
SM5	0.83	0.6889	0.3111			
SM6	0.81	0.6561	0.3439			
SM7	0.86	0.7396	0.2604			
SM8	0.78	0.6084	0.3916	0.94	0.673	0.82

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
SES	0.901	0.95	0.68
CA	0.816	0.96	0.703
SM	0.711	0.94	0.673

**Table 3 Discriminant Validity**

	Square root of AVE	SES	CA	SM
SES	<b>0.82</b>	<b>0.82</b>		
CA	<b>0.84</b>	0.62	<b>0.84</b>	
SM	<b>0.82</b>	0.58	0.61	<b>0.82</b>

**Table 4 Model Fit Indices**



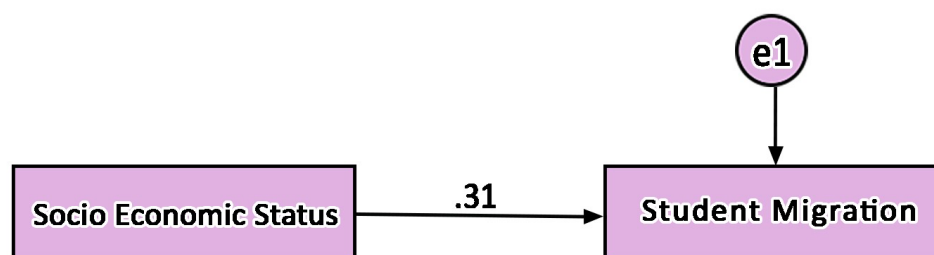
Factors	Values	Factors	Values
CMIN	2.167	DF	1
Chi-square	2.143	P Value	0.000,
AGFI	.944	GFI	0.911
TLI	.901	CFI	.913
RMSEA	.022	RMR	0.016

### Analysis and results

All these scales were modified and validated specifically for the present research. Before testing the hypothesis, the construct validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), average variance extracted (AVE) and composite reliability (CR) was calculated. In the current study, AVE is more than 0.50, which means the observed variable's error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. As per convergent validity, each construct is more than 0.50. AVE for SES has an average construct of 0.68, CA has an average construct of 0.703, SM has an average construct of 0.673. Hence, we can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are > 0.9; hence, the constructs have an excellent model fit (Table 4).

### Direct Effect (Figure 2)

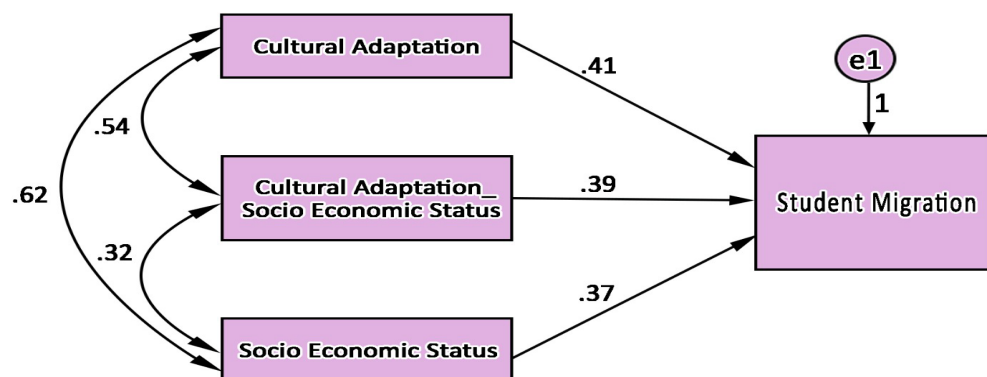




**Table 5 Direct Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H1	SES→ SM	0.31	0.096	7.473	0.014	Supported

**Moderating Effect (Figure 3)**



**Table 6 Moderation Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H2	SES → SM	0.37	0.071	7.649	0.000	Supported
H3	CA → SM	0.41	0.046	8.036	0.000	Supported
H4	SES_CA→SM	0.39	0.083	7.123	0.000	Supported

**Hypothesis testing**

As per Aiken and West (1991), all the constructs were mean centred prior to the moderation analysis. Three Structural Equation Models (SEM) were created to analyse the moderating effect of CA on SES and SM by



adopting the pattern as per Baron and Kenny (1986). As per the result, a substantial positive correlation is observed between SES and CA ( $r=0.62$  and  $p < 0.05$ ), hence H5 is accepted;

### **Moderation Analysis**

Figure 3, evaluated the independent variable's impact on the dependent variable; measured the impact of moderating variable on the dependent variable; verified the interaction effect and its impact on the dependent variable, while Figure 2 exhibits, direct impact of SES to SM ( $\beta = 0.37$ ;  $p < 0.05$ ); thus, H1 is accepted. Figure 3 shows that the moderation effect of CA with the relationship of SES on SM. The SES on SM shows a positive impact ( $\beta = 0.37$ ;  $p < 0.05$ ). Therefore, H2 is accepted. The moderator CA as has a positive impact on SM ( $\beta=0.41$ ;  $p < 0.05$ ). Therefore, H3 is accepted. The interaction term between SES and CA was positively connected to DR ( $\beta=0.39$ ;  $p < 0.05$ ). Therefore, H4 is accepted.

### **Suggestion for Future Research**

Future research endeavors could benefit from collecting data from diverse regions within the state of Kerala to gain a more nuanced understanding of the specific areas experiencing significant student migration and the particular fields of higher education pursued. Exploring the types of financial assistance available and examining the influence of placement agencies as push factors could contribute valuable insights to the field. Additionally, investigating cognitive factors contributing to adaptation in the current context would further enhance our understanding of the complexities surrounding international student migration from Kerala. These suggested avenues for research have the potential to provide a comprehensive and detailed picture of the factors influencing migration patterns and adaptation processes.

### **Implications of the study**

This paper delves into the impact of socio-economic status on international student migration, exploring whether cultural adaptation plays a role in students' decision to pursue higher studies abroad. Individuals of higher socio-economic status often opt for prestigious institutions abroad, experiencing smoother cultural adaptation to their host country. Conversely, students with lower economic standing turn to higher education through educational loans, with their adaptation to the host country driven by the imperative to stay. Notwithstanding challenges, universities acknowledge and manage cultural diversity through events and celebrations.

The adjustment to religious and food habits by migrant students is extended and adapted. Their academic success and favorable job placements serve as compelling factors attracting more students towards international migration. This study sheds light on the nuanced interplay between socio-economic status, cultural adaptation, and the motivations influencing international student migration.

### **Discussions with Conclusion**

The rising trend of youth migration from Kerala to global north countries for educational purposes is fuelled by the pursuit of improved opportunities and a higher standard of living. While this migration has brought about



social and economic impacts on Kerala, there exists the potential for a return migration of this cohort, primarily due to challenges in adapting to the host countries' culture. The inclination to study abroad has gained popularity, thanks to its transformative potential in enhancing students' knowledge and experiences, providing them with a competitive edge in the job market. Consequently, this has made a significant contribution to the economies of destination countries.

Students from lower socio-economic backgrounds often rely on educational loans to pursue studies abroad. Despite facing challenges in cultural adaptation, these students persist in their host countries, driven by the exploration of competitive advantages. In conclusion, the paper emphasizes the reality that socio-economic status, coupled with cultural adaptation to the host country, significantly influences international student migration from Kerala for higher education.

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## **GO WITH TRENDS AND GROW WITH TRENDS; AN INTERACTIVE STUDY ON INFLUENCE OF CONTENT CREATORS ON BRAND UPLIFTMENT THROUGH SOCIAL MEDIA ECOLOGY**

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### **Abstract**

**Purpose** - Content creators play a crucial role in promoting brands on social media by engaging and attracting audiences. Well-crafted posts, visuals and videos help create brand awareness, build community, and establish a distinct brand identity. Consistent relevant content also encourages audience interaction, shares and ultimately contributes to a positive brand image. This article explains how content creation promotes branding through social media ecology likely explores the interconnected relationships between content, audience engagement, and the overall social media environment. It may delve into the dynamics of content dissemination, user interactions, and how these elements contribute to brand visibility and loyalty within the broader digital ecosystem.

**Design/Methodology/Approach** - The objective of the study was to determine if content creators have a direct impact on brand upliftment and whether it has a mediated effect through social media ecology among Indian online buyers. Data from 486 respondents who were online buyers in various areas of Kerala were collected through judgement sampling.

**Findings** - Aiken and West (1991) state that all of the constructs were mean-centered prior to the mediation investigation. To investigate the mediation effect of SM on CC and BU, three structural equation models (SEM) were created using the pattern put forth by Baron and Kenny (1986). The results indicate a direct relationship ( $\beta=0.29$ ;  $\xi < 0.001$ ) between CC and BU. Therefore, H1, which shows the direct relationship between CC and SM ( $\beta=0.31$ ;  $p < 0.001$ ), is accepted. Thus, H2 is authorized. There is a direct link ( $\beta = 0.26$ ;  $p < 0.001$ ) between SM and BU. Thus, H3 is accepted.

Finding the mediating influence enables one to ascertain the overall relationship between the constructs. In this case, there is a 0.29 direct influence between CC and BU, a 0.0806 indirect effect, and a 0.37 overall effect. The variation accounted for statistics (VAF) is 21.7%, suggesting that content providers are partially mediated by the social media ecology in the process of brand upliftment. The VAF, which computes the influence of the indirect effect on the dependent variable or the amount that the dependent variable is explained by the indirect effect through the mediator variable, determines the importance of the indirect effect. Since the VAF score for the hypothesis falls between 20% and 80%, indicating partial mediation, H4 is accepted.

**Originality / Value** - This analysis has resulted in a study on the relationship—both directly and through mediating factors like social media ecology, effective advertisement, and customer satisfaction in rural

India—between content creators and the brand upliftment that hasn't been theoretically examined or empirically tested.

**Key words** - Content creators, social media ecology, Brand upliftment, online buyers, Internet

### **Introduction**

Evolution of the internet and social media was a milestone in various sectors. Marketing has also taken advantage of these innovations. Online marketing has become inevitable in the business due to its acceptance among customers. The companies include the online marketing in their marketing strategies and invest a large amount for the same. They formulate a variety of plans through social media to increase their reach. They employ content creators for implementing these strategies. The fastest growing social media platforms such as Instagram, Facebook, YouTube etc. are highly preferred for brand promotion and upliftment. (Berthon and others 2012), claim that social media makes it easier for users to create accessible material, communicate with one other and form associations, and work together.

Over the past ten years, social media platforms have revolutionized the way businesses operate. As a result, social media marketing has become its own distinct entity in the business sector. The social media marketing influenced the consumer behavior and buying patterns of the consumers (Ramanathan, Subramanian and Parrott, 2017). Due to the phenomenal changes in the marketing, firms are creating new and separate department by hiring social media analysts and content creators (Fowdar R and Roshnee R, 2013). Businesses can no longer rely on conventional forms of advertising, which were becoming disengaged from the public's responses, such as radio, television, newspapers, magazines, billboards, etc. and must concentrate on the current dynamic market (Deepa and Deshmukh 2013).

Customers in this digital age use the internet to research sellers and products. They depend on other users' reviews and insights regarding the goods or services that are listed in the review area. Any unfavourable customer review could deter prospective customers (George and Ramanathan, 2013). Before the internet era, the only way to find out about a product was to go to the market and buy it. Now a days things has changed. Therefore, companies need to expand their reach through social media marketing in order to meet the needs of their customers and maximize profit (Keiningham, Gupta S and others 2014). The number of social media influencers (Content creators) are rising day by day. They influence their followers to buy a particular brand. Companies choose the content creators who have the highest followers. Then the content creators play an important role in the purchasing decision of their followers. The reviews by the content creators helps for brand upliftment. The study mainly focuses on the influence of content creators on brand upliftment through social media Ecology.

### **Literature review**

#### **Relation between Content creators (CC) and social media (SM)**

Content creators develops consistent content and distributes valuable relevant information to attract and acquire a well-defined audience (Gishwa Ansari, et al., 2019) content can be in the form of blogs, videos, case studies, vlogs images, eBooks etc. ads it broadly spread through social media. Social media platforms allow the users the freedom of creating, using and exchanging the content among others (Whiting &Willians 2013). Social media recently changed accordingly to the need of customers and content creators (Patino et al 2012). It maintains and retain long term relationships with (Vanauken, 2014) the stakeholders of the platform.

The content can be in both hands like entertainment and business. Business contents are generally built to create awareness and build up brand images among different sectors of the society. The content of their ideas and experiences can be drive profitable customer action. The content marketing through social medias generates awareness, insists desire. purchase, retention and reinforcement (Pulizzi 2012).

The social media mainly focuses on the youngsters and their attitude of digital focusing. The important and the unique characteristics of social media is the networking capability and it is the capitalized benefits can be triggered by business peoples. Content creators uses social media profiles as a platform to build their personal brand and connect with their followers. Content creators focuses on specific topics as per their interests and skills. Through their personal brands they can establish themselves as thought leaders in their niche. Understanding and analyzing social media through different channels and it promotes. Creative and innovative approaches on personal and professional contents. The potential branding and upliftment are possible through the different content creation strategy and well-equipped social media nurturing. Content can be in the form of case studies, blogs, videos, infographics, e-books, images, professional reviews, and other formats. B2C businesses frequently employ social media, website articles, blogs, and vlogs as content marketing tools. While, recordings are viewed as the best showcasing strategy for imparting organization bits of knowledge to shoppers. The idea of user-generated content tends to be more effective at connecting with consumers because it allows them to contact, engage, express themselves, and contribute to the creation of content. The client produced content aides in building virtual networks for the brand which at last improves the brand picture too (Holliman and Rowley, 2014). It is seen that youthful shoppers are all the more effectively partaking in sharing their sees in regards to an item or administration they experience by various brands (Hsu, et al., 2013). A solid substance by the brand can help the brand in holding clients can turn into the backers for the brand in future and help the organization in drawing in the likely objective market by posting audits on the web-based entertainment stages and spreading a positive verbal exchange for the organization (Hur, et al.,2011).

### **H1: There is an extensive positive relationship between CC and SM**

#### **Relation between social media (SM) ecology and brand upliftment (BU)**

The 21st century has altered how businesses and customers communicate while also providing organizations and individuals with a wealth of new opportunities. In recent years, social media has grown to be one of the most important phenomena (Masrura Ahmed Tanha, 2018). Businesses are spending money on social media to improve customer relations and interactions. This can be accomplished by establishing brand communities through social media brand pages, where clients can interact with the business and other clients directly by leaving comments or postings (Habibi, Laroche and Richard, 2014). Fans of these pages are typically devoted and faithful to the company and receptive to receiving fresh information about it (Bagozzi and Dholakia, 2002). These brand loyalists visit the stores more frequently, have a stronger emotional connection to the company, and spread good word of mouth (Dholakia and Durham, 2010). The concepts of brand love and like, association, decision-making, and loyalty are all related to brands. These days, showing appreciation for a brand can be seen in the likes on Facebook sites and the followers on Twitter and Instagram profiles (Wallace, Buil and Chernatony, 2017). Researchers have previously attempted to establish a connection between social media marketing and brand love in order to quantify customer involvement by linking it to brands that are self-expressive and based on an organization's likes and followers (Wallace, Buil and Chernatony, 2014).

Young adults make up the majority of potential users on social networking platforms. Because these networking sites have a lot of commercial material, entertainment, and social gathering opportunities, users spend more time there. Therefore, in order for their brand identity to be formed among the proper choice of focused audience, product or service communicators are needed through their commercials in these locations with an increasing number of engaging and fascinating features (Tina Vukasovic, 2013). The distinction between a brand and its network of customers has become hazier thanks to social media

platforms. Companies are utilizing consumer brand stories to establish personal connections with their clients, much like any other user on social media (Mallapragada, Grewal and Lilien, 2012). The company's brand performances might be influenced by consumer brand stories (Shahbaznezhad and Tripathi, 2015).

Businesses often start and manage the diffusion process by concentrating on the most powerful social media users in order to increase the impact of social influence on product acceptance (Francesco Bonchi, Carlos Castillo, Aristides Gionis and Alejandro James, 2011). However, due to the power-law structure of social media, the bulk of users rarely participate in conversations, especially following noteworthy events, as they prefer not to create hype. The "vocal minority" in content creation, however, behaves differently. This group's users use twice as many hashtags, links, and mentions in their tweets as the quiet majority, and their retweet rate is higher (Eni Mustafaraj et al., 2011).

## **H2: there is a significant positive effect between SM and BU**

### **Impact of content creators (CC) and brand upliftment (BU)**

Social media has developed into a vital instrument for building client and business relationships. However, since businesses struggle to understand what motivates user engagement, producing engaging content for social media marketing campaigns is difficult. Utilizing analytics on user-generated social media content to comprehend the connection between content features and user engagement is one way to tackle this problem (Roope Jaakonmaki, Oliver Miller and Jan Vom Brocke, 2017). Businesses and marketers use social media platforms as a channel for customer-to-customer communication about product-related information, opinions, attitudes, and purchase and post-purchase experiences in addition to using them to push information about products to consumers (Mangold, W. G., and D. J. Faulds, 2009). In fact, over the past few years, user-generated content on social media has become a significant factor in influencing consumer behavior (Hoffman, D. L., and M. Fodor, 2010). Thus, it should come as no surprise that social media marketers are adopting marketing ideas like influencer marketing and word-of-mouth (WOM) advertising. Word-of-mouth marketing is the process of identifying key decision makers within a target audience and encouraging them to use their influence to spread word of mouth about a product or service, whereas influencer marketing is the act of consumers talking among themselves about a product or service (Thorne, L, 2008). Accordingly, an influencer is a third party that has a substantial impact on other customers' opinions and purchasing decisions (Brown, D., and N. Hayes 2008).

Influencers may be compensated financially or in kind by brands by posting pictures of themselves using their products or brands on social media platforms along with hashtags associated with the brand. On social media, influencers are frequently well-liked and connected. Although having a lot of connections and popularity does not automatically translate into having a lot of influence, these traits are crucial for influencers (Romero, D. M., W. Galuba, S. Asur, and B. A. Huberman, 2011)

"Using and sharing personal content about oneself is the main purpose of social networking sites"(Ellison, N., Steinfield, C., and Lampe, C, 2011). Users' continued commitment and engagement during subsequent visits can be guaranteed by sharing content (Burke, M., Marlow, C., and Lento, T, 2009). However, people share content on social networking sites for a variety of reasons. Users may share helpful content to seem informed or just to lend a hand (Wojnicki, A., and Godes, D, 2008). Posts can be used based on their emotional resonance as well as their content. In a recent study, researchers examined the relationship between the emotion evoked by content and its virality using articles from the New York Times and discovered a direct correlation (Berger, J., and Milkman, K. L, 2012).

## **H3: there is a substantial positive effect between CC and BU**

### **Mediating role of social media (SM) on the relationship between Content creators (CC) and Brand**

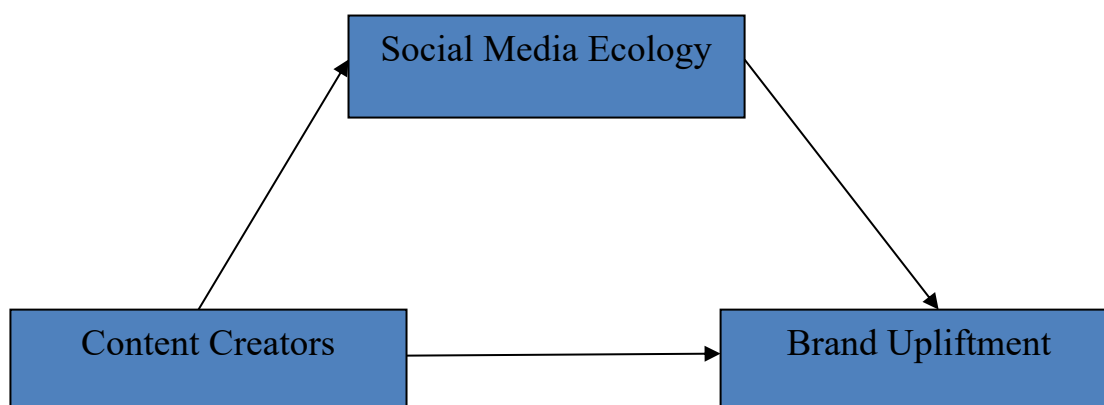
### **Upliftment (BU)**

The content creators are considered as influencers who can act as a marketing agent. They publish their perceptions and consumers make decisions through these sources with great trust. They can attract large number of social media users called followers and shape and alter their lifestyle, attitudes etc. Through continues interaction with the content creators the users will have a psychological bonding towards brands (Siti liu, 2021). The growth of the influencer market is tremendous. They offer many benefits to customers, at the same time there are many challenges and potential risks also. The influencer is both a mediator and entrepreneur simultaneously. They sometimes behave as trade bodies and influence the followers. There are different types of influencers like experts, celebrities, trendsetters, bloggers, opinion leaders. (Frithjof, Michaelsen, Luena Collini, 2022). As social media is a powerful tool, content creation results in better brand image, sales and customer satisfaction (Duc Le M, 2013). The content creators accumulate subscribers by content sharing and create brand endorsements into reels and posts. The brand upliftment is happening based on the content’s informative value and not the entertainment function. The influencer credibility also plays a huge role in brand upliftment.

Various businesses and government institutions have been using social media platforms as part of their promotion tools to reach into the citizens (Angella Ji-Young Kim and Eunju Ko,2010). The evolution of social media platforms changed the strategies for brands. The traditional marketing techniques are outdated and it is substituting digital marketing. The visual contents play a crucial role in digital marketing. Now social media has become a channel that improves communication between 2 persons (Sterne, 2010). Factors like mentions, retweets, and number of followers of the content creators have a great role in brand upliftment (Meeyoung Cha, Hamed Haddadi, Fabricio Benevenuto and Krishna P Gummadi,2010). The social media reviews are considered as the 3rd reliable source of marketing in the year 2015. Majority of the respondents opine that social media platform reviews are the main reason for the growth of brands and influencer market. Consumers opine that knowledge and information from the content creators are credible because of the expertise and this affects their buying behaviors (Shimp, 2000).

#### **H4: enhancing SM mediating the relationship between CC and BU**

#### **Conceptual Framework (Figure 1)**



#### **Pilot Study**

A pilot study was conducted employing online buyers in different areas of Tamil Nadu and Kerala prior to the main study's commencement. For the pilot study, 120 online buyers from five districts in each state were selected. Fifty-five online purchasers were from Tamil Nadu and sixty-five from Kerala. To ensure the correlation of any obscurity in the measurement, the validity and reliability of the measured scales were examined. A few minor adjustments were made to the questionnaire in response to the

respondents' suggestions.

### Population and sample

For this study, the purposive sample technique (Kothari, 2004) was used, and as previously indicated, the online buyers in the state of Kerala were chosen for data collection. Eight hundred questionnaires were distributed to online purchasers via Google Forms, accompanied by a guarantee of confidentiality and anonymity for the answers. Out of the 680 responses (85%) that were received, 196 were discarded because of incomplete information. Due to the nature of the study, 486 correct responses (71.4%) after the previously mentioned moderate rate of rejection were deemed to be rather satisfactory.

### Measuring instruments

#### Content Creators

Self-reported data was used to examine the content creators' dependability; an Alfa score of 0.79 was used to assess the normalcy of the data; skewness and kurtosis were used to determine whether the data was between the range of – 1.96 and + 1.96. Using a 5-point Likert scale, 1 represents strongly disagree and 5 represents extremely agree.

#### Social Media Ecology

Self-reported data was used to measure the social media ecosystem. An Alfa score of 0.83 was used to assess reliability, and skewness and kurtosis were used to test for normalcy (being between – 1.96 and + 1.96). Using a 5-point Likert scale, 1 represents strongly disagree and 5 represents extremely agree.

#### Brand Upliftment

Self-reported data was used to quantify brand upliftment. An Alfa score of 0.76 was used to assess reliability, and skewness and kurtosis were used to test for normalcy. The results showed that the brand was between – 1.96 and + 1.96. Using a 5-point Likert scale, 1 represents strongly disagree and 5 represents extremely agree.

### Demographic Statistics

233 (48%) female and 253 (52%) male online shoppers made up the sample; 136 (27.9%) belonged to the 20–30 age group, 197 (40%) to the 30–40 age group, 98 (20%) to the 40–50 age group, and the remaining 55 (11.3%) to the 50-age group. The bulk of respondents—194 (39.9%) who made their living at home and 210 (43.3%) who worked in the private sector—belong to the income bracket of 100,000–300,000.

**Table 1 Convergent Validity**

Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
CC1	0.78	0.6084	0.3916			
CC2	0.84	0.7056	0.2944			
CC3	0.76	0.5776	0.4224			
CC4	0.88	0.7744	0.2256			
CC5	0.8	0.64	0.36			
CC6	0.89	0.7921	0.2079			
CC7	0.75	0.5625	0.4375			
CC8	0.87	0.7569	0.2431	0.91	0.67	0.822
SM1	0.77	0.5929	0.4071			

SM2	0.79	0.6241	0.3759			
SM3	0.87	0.7569	0.2431			
SM4	0.81	0.6561	0.3439			
SM5	0.71	0.5041	0.4959			
SM6	0.84	0.7056	0.2944			
SM7	0.73	0.5329	0.4671			
SM8	0.88	0.7744	0.2256			
SM9	0.76	0.5776	0.4224			
SM10	0.9	0.81	0.19	0.95	0.65	0.806
BU1	0.81	0.6561	0.3439			
BU2	0.71	0.5041	0.4959			
BU3	0.86	0.7396	0.2604			
BU4	0.73	0.5329	0.4671			
BU5	0.82	0.6724	0.3276			
BU6	0.76	0.5776	0.4224			
BU7	0.84	0.7056	0.2944			
BU8	0.9	0.81	0.19			
BU9	0.77	0.5929	0.4071	0.94	0.64	0.802

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
CC	0.79	0.91	0.67
SM	0.83	0.95	0.65
BU	0.76	0.94	0.64

**Table 3 Discriminant Validity (By using AVE)**

	Square root of AVE	CC	SM	BU
CC	<b>0.822</b>	<b>0.822</b>		
SM	<b>0.806</b>	0.633	<b>0.806</b>	
BU	<b>0.802</b>	0.712	0.786	<b>0.802</b>

**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.56	DF	1
Chi-square	2.03	P Value	0.000
AGFI	.966	GFI	0.926
TLI	.918	CFI	.916
RMSEA	.013	RMR	0.032

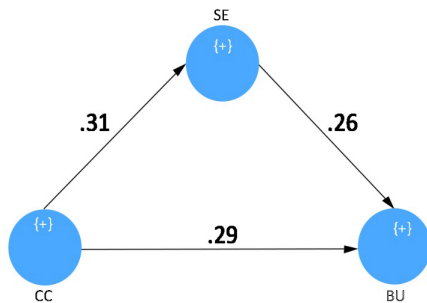


**Analysis and results**

Particularly for this investigation, every one of these scales was modified and validated. Before the hypothesis was tested, the construct validity was verified using Confirmatory Factor Analysis (CFA). In order to calculate composite reliability (CR) and average variance extracted (AVE), Fornell and Larcker's (1981) formula was used. Since AVE is greater than 0.50, the observed variable's error is within allowable bounds in the current inquiry. To ensure the overall concept validity, investigations of discriminant validity and convergent validity were performed. Convergent validity indicates that each construct is more than 0.50. AVE indicates that the average constructions for SM, BU, and CC are, respectively, 0.65, 0.67, and 0.64. As a result, we can verify that every concept possesses the required convergent and discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

The conceptual model was determined after the construct validities were confirmed. Next, a confirmatory factor analysis was carried out using two parameters—the Normal Fit Index (NFI) and Standardized Root Mean Square Residual (SRMR), as suggested by Henseler et al. (2015). A model that has an SRMR < 0.08 and a minimal discrepancy of < 5 is considered to be roughly well-fitting; nonetheless, it has to be modified if it contains any significant residual values. The constructs have an excellent model fit in this case since the SRMR is less than 0.08, the minimum discrepancy is less than 5, the root mean square error of approximation (RMSEA) is less than 0.05, and the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are greater than 0.9 (Table 4).

**Direct Effect (Figure 2)**



**Table 5 Direct Effect**

Hypotheses	Path Relation	Original Sample	SM	T Values	P Values	Decisions
H1	CC→ BU	.29	0.020	4.83	0.00	Supported
	CC→ SM	.31	0.054	9.68	0.00	Supported
	SM→ BU	.26	0.066	4.59	0.00	Supported

**Hypothesis testing**

Before the mediation study, all of the constructs were mean-centered, according to Aiken and West (1991). Using the pattern proposed by Baron and Kenny (1986), three structural equation models (SEM) were developed to examine the mediation effect of SM on CC and BU. The findings show that there is a direct link between CC and BU ( $\beta=0.29$ ;  $p < 0.001$ ). H1, which represents the direct effect

between CC and SM ( $\beta=0.31$ ;  $p < 0.001$ ), is thus approved. H2 is therefore approved. The correlation between SM and BU is direct ( $\beta = 0.26$ ;  $p < 0.001$ ). H3 is therefore approved.

**Table 6 Mediation Effect**

Hypotheses	Associations	Direct Effect	Indirect Effect	Total Effect	VAF	Mediation
H4	CC→ BU	.29	0.0806	0.37	21.7%	Partial mediation

**Mediation Analysis**

Establishing theoretically indirect links between constructs, where the mediating variable modifies the direct path, is the task of the mediation analysis. Determining the mediating impact makes it possible to identify the link between the constructs overall. Here, the direct effect between CC and BU is 0.29, the indirect effect is 0.0806, and the total effect is 0.37. The variance accounted for statistics (VAF) is 21.7%, indicating that social media ecology has a partial mediation effect on content creators on brand upliftment. The significance of the indirect effect is determined by the VAF, which calculates the influence of indirect effect on dependent variable or how much the dependent variable is explained by the indirect effect through mediator variable. For hypothesis it is found that VAF value is in between 20% -80% that shows partial mediation and hence H4 is accepted

**Discussion and conclusion**

The study on influence of content creators and brand upliftment through social media ecology has proved the logical sense of positive relationship between the variables. The study exhibits the direct relation between Direct, indirect and mediating variable. The conclusions drawn on the basis of 486 samples of study. The analysis of hypothesis shows the positive partial effect of social media ecology on brand upliftment. Content creators indirectly influences the brand growth and directly connected with social media as well.

The study hence proved the direct above average relationship between social media ecology and Brand upliftment, so the positive path of connection can be drawn. The study justified the indirect relation between content creators and brand upliftment the mediating role of social media. So, arriving to a conclusion, there is a strong relationship between CC and SM and SM and BU. The connection of CC and BU can be enlarged through the development of social media engagement.

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## ENTREPRENEURIAL EDUCATION AND ENTREPRENEURIAL INTENTION-THE MEDIATING ROLE OF KSUM AMONG THE COLLEGE STUDENTS IN KERALA

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### **Abstract**

Now a days, Kerala is successfully focusing on building up a start-up ecosystem mainly through tourism centric development. The young generation of Kerala is trying to be self-employed because of the declining employment opportunities in both government and private sectors. On this occasion the government of Kerala has come forward with multiple schemes to transform unemployed youth to become entrepreneurs. Kerala Start Up Mission (KSUM), an agency of Government of Kerala is such a scheme through which entrepreneurship development and incubation activities are implemented. Entrepreneurship education cultivates innovative talents, which are important driving force for future development. The present study aims to find out the relationship between entrepreneurial education and entrepreneurial intention and the mediating effect of KSUM in this.

**Design/ Methodology/ Approach** - The analysis was directed to test how entrepreneurial education influences the entrepreneurial intention of college students in Kerala and to test the mediating effect of KSUM in entrepreneurial intention of college students. The convenient sampling was used in this study. Structured and pre tested questionnaire was used to collect data. The data was collected from 602 respondents of college students of Kerala.

**Findings-** All the scales were modified and validated specifically for the present research. In the current study, AVE is more than 0.50, which means the observed variable's error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. As per convergent validity, each construct is more than 0.50. AVE for EE has an average construct of 0.58, KSUM has an average construct of 0.56, EI has an average construct of 0.57. Hence, we can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs. This study proves that entrepreneurial education has an impact on entrepreneurial intention. KSUM support educational institutions to provide entrepreneurial development programmes for the college students in Kerala. The findings revealed that all the schemes of KSUM are very effective for supporting start-ups of college students.



**Originality/Value** - This analysis has made research on the relationship of entrepreneurial education and entrepreneurial intention through the mediating role of KSUM which has not been theoretically scrutinized and empirically tested.

**Keywords** - Entrepreneurial Education, Entrepreneurial intention, KSUM

**Acronym:**

KSUM: Kerala Start Up Mission

EE : Entrepreneurial Education

EI : Entrepreneurial Intention

**Introduction**

Kerala, the God's own country is on the path of a great social change. Now a days, Kerala is successfully focusing on building up a start-up ecosystem mainly through tourism centric development. The young generation in Kerala is trying to be self-employed because of the declining employment opportunities in both government and private sectors. On this occasion the government of Kerala has come forward with multiple schemes to transform unemployed youth to become entrepreneurs. Kerala Start Up Mission (KSUM), an agency of Government of Kerala is such a scheme through which entrepreneurship development and incubation activities are implemented. Entrepreneurship education cultivates innovative talents, which are important driving force for future development. Most of the current discussion in this field focuses on the construction of teaching staff in the entrepreneurial education system (Ruskovaara and Pihkala, 2015), curriculum development (Falck et al., 2016), and whether entrepreneurship education can influence the intention of entrepreneurship (Martin et al., 2013; Pittway and cope, 2016). Entrepreneurship education develops a person to become an entrepreneur. Students are more likely to make choices of starting their own business. Actually, entrepreneurship is a collaboration of people having an objective to implement their business ideas. It can be developed through effective coaching programs. Motivating college students towards a culture of entrepreneurship and innovation will have an impact both regionally and internationally.

**Review of Literature**

**College students' entrepreneurial intention is influenced by entrepreneurship education**

One of the highly debated topics in higher education that has attracted increasing attention in recent years relates to entrepreneurship education for college students (Santos et al., 2019; Cui et al., 2021; Wang et al., 2021). It has been of serious concern to administrators and course developers, researchers, and policymakers (Rauch and Hulsink, 2015), given the increasing importance of entrepreneurship in generating innovation and fueling economic growth (Sutter et al., 2019). Education in this field has the potential to boost the learning of college students and promote the acquisition of entrepreneurial knowledge, skills, and behavior (Cui et al., 2021), thereby enabling them to reach a high level of entrepreneurship (Jack and Anderson, 1999).

The aim of including entrepreneurship within higher education is to promote entrepreneurial intent and behavior among college students, and the entrepreneurial mindset has been deemed potential in terms of correlation (Solesvik et al., 2013; Pfeifer et al., 2016; Nabi et al., 2018; Cui et al., 2021). Rather than reflecting the *status quo*, it has been conceived of as a frame of mind for approaching problems, implementing innovations, finding solutions, sharing ideas, and making change happen, based on a spectrum associated with business ownership (Nadelson et al., 2018). It could be shaped through entrepreneurship education, not only in reflecting the thinking of entrepreneurs but also in enabling others to think and act like entrepreneurs. However, research on any link between entrepreneurship education

and an entrepreneurial mindset, as well as on the role of the mindset in predicting entrepreneurial intention or behavior, is in the early stages (Krueger, 2015; Cui et al., 2021).

A meta-analysis carried out by Bae et al. (2014) revealed a significant but small correlation between entrepreneurship education and entrepreneurial intention, indicating the need to control for other variables that might affect the effectiveness of the education. Although learning motivation has been shown to affect the experiences of college students (National Survey of Student Engagement, NSSE) (Kuh, 2001), exactly how it benefits from entrepreneurship learning remains unclear (Hytti et al., 2010). In addition to curriculum attendance and extracurricular activity, prior entrepreneurial exposure has also been shown to boost entrepreneurial intention (Chlosta et al., 2012), such as by changing attitudes (Krueger et al., 2000; Zapkau et al., 2015). It would, therefore, be useful to assess learning motivation and entrepreneurial exposure as contextual factors of entrepreneurship education.

Entrepreneurship education aims to develop students' entrepreneurial intentions (Li and Wu, 2019). As the optimal predictor of entrepreneurial behavior (Krueger et al., 2000), entrepreneurial intention has been highlighted in investigations of its relationship with entrepreneurship education (Zhang and Huang, 2021). Empirical studies have identified the mechanisms by means of which entrepreneurship education promotes entrepreneurial intentions (Nabi et al., 2018). First, *via* its courses and programs, it enables students to enhance their entrepreneurial knowledge, skills, attitudes, and even personal qualities (Wu et al., 2022). Second, incorporating field studies, internships, and extracurricular activities could give students entrepreneurial experience and constructive ideas. Finally, the process of learning could support the building of motivation and commercial networks, which could encourage student involvement (Egan et al., 2017).

## **H1: Entrepreneurship education relates positively to entrepreneurial intention.**

### **KSUM impact on entrepreneurship Intention.**

Kerala is one of the states that has been striving to create a vibrant ecosystem for sustainable startups that work on exponential technologies, developing solutions that address the problems of the society at large. The Government of Kerala has been an early adopter for startup products and services and is proactively working on creating various programmes to nurture this trend. For this, it founded the Kerala Startup Mission (KSUM) in 2006, with a vision to promote technology-based entrepreneurship activities, by offering the appropriate ecosystem and infrastructure. Startups in Kerala should be aware that while it can take them a long time to completely utilize their innovations, they must first have some specific present applications. Because there is no management, the situation is always going to be disorganized and chaotic. Therefore, regardless of the organization how big or small, profitable or not, providing services or producing things, and need management. To guarantee that everyone makes the greatest possible contribution to achieving the group goal, Goals and management are crucial. A company's most valuable asset is its workforce, or people resources. The goal of a start-up in Kerala is "getting work done via people" and by using them, organizational goals can be achieved. In Kerala, launching a business requires managing. Managing the diverse demands of each employee individually is (a) managing people on two levels. (Aswathy and Dayana Das, 2022). India's economy is significantly impacted by startups. Innovative thinkers are starting businesses with little funding. While expertise is essential to building successful companies, innovation is a requirement for the growth of any country. The Keralan government has introduced a variety of programs for aspiring young business owners in the state to encourage entrepreneurship. This essay focuses on the Kerala Startup Mission's programs for young, creative entrepreneurs and startup-related information in Kerala. This paper mainly covers the schemes available

under the Kerala Startup Mission for young and innovative entrepreneurs and information relating to startups in the state (Shameera and Vennila, 2022). Startup is a rapidly expanding business model that receives capital from investors, but it also carries a high risk and failure rate. This study intends to investigate key success variables in Thai startups and their relationships. The use of factor analysis and multivariable regression analysis to the investigation of causal relationships between components is known as structural equation modeling. The findings indicate that there are four key success determinants for Thai startups, including the support partner, business model, market opportunity, and consumer perspective, based on sixteen observed variables. The potential and success of startups are directly influenced by several elements, most notably the business model and the support partner. This study provides a knowledge base that helps investors assess their startup investments as well as young entrepreneurs in growing their businesses (Rochimah, 2018). KSUM also aims to create a global platform for its entrepreneurs by giving mentorship and conducting exchange programs. Scale-up the use of programs like Fail Fast or Succeed entrepreneurs to assess themselves and provide guidance through a number of developmental stages. KSUM further foresees increasing the participation of women by doing out actions in the startup ecosystem at the secondary level and giving them an early introduction to entrepreneurship. KSUM will also concentrate on healthtech. The state's development by promoting health care for start-ups and by working with reputable knowledge colleagues, KSUM also wants to establish a worldwide platform for its business owners by providing mentoring and carrying out exchange initiatives.

## **H2 KSUM had significant impact on entrepreneurship intention**

### **Kerala Start Up Mission's Impact on the relationship between Entrepreneurial Education and Entrepreneurial Intention.**

The implication for teaching entrepreneurship is that the role of and context for new and small firms is strikingly different in the entrepreneurial economy than in the managed economy. (Thurik et.al, 2004) The business incubation concept focusses on the resources and assistance towards incubated firms that lead to the development of new and innovative products in established or new markets (Salamzadeh, 2018). Research institutions and universities are also moving forward to achieve entrepreneurial goals and therefore are willing to help startups. Entrepreneurial mindset was mainly shaped in entrepreneurial events held by universities for young potential entrepreneurs (Cheraghi, 2017) As most of the startups are created by young entrepreneurs who are studying in a university or are recently graduated students, universities become so important (Davila, 2015). Moreover, universities are considered as potential talent pools in which potential co-founders are identified. Startup workshops, events and competitions are normally arranged in universities (Oppong-Tawiah, 2016). Startup teams include a talent pool of university graduates, then what these individuals learn in universities become more important (Salamzadeh, 2018). Innovation and Entrepreneurship Development Centre (IEDC) is a flagship initiative of Kerala Startup Mission to promote innovation and entrepreneurship among the student and academic fraternity in the educational institutions in the State of Kerala and considered as an umbrella programme that would play an instrumental role in fostering innovation culture in Academic institutions. The Network of Entrepreneurs & Students' Team (NEST) programme aims to bring innovators from IEDC together and give them the chance to lead the IEDC activities on a State Level. EDCs serve as the first launch pad for a student's entrepreneurial adventure. The goal of NEST is to develop a group of young talent from around the state to effectively administer the programmes and so advance each of their leadership skills.

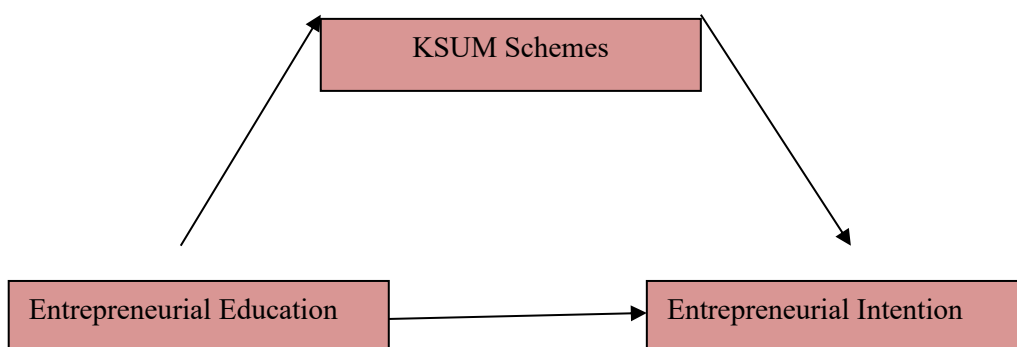
**H3: KSUM had an impact on the relationship between Entrepreneurial Education and Entrepreneurial Intention.**

**Data collection and population**

A pilot study was executed through the college students in Kerala. One hundred and fifty respondents were selected for this survey. The validity and reliability of the measurement scales were verified. Based on the feedback from the respondents, minor corrections were made to the questionnaire. The convenient sampling technique (Kothari, 2004) was employed for this research, A total of 300 questionnaires were circulated through google forms to the college students in Kerala, with an assurance statement of privacy and anonymity of the responses. A total of 910 responses were received (75.8%); out of this, 308 were rejected due to missing data. After the aforesaid moderate rate of rejection, 602 accurate responses (66.1%) were considered reasonably good because of the study’s nature. The sample included 328 (54.4%) female and 274 (45.5%) male respondents’ majority of the respondents undergoing their graduation 248 (41.19%), 178 (29.5%) undergoing post-graduation and the rest consisting other course 176 (29.2%).

**Analysis & Interpretations**

**Conceptual Framework (Figure 1)**



**Measuring Instruments**

• **Entrepreneurial Education**

Entrepreneurial education was measured adopting self-reported data, the reliability measured by using Alfa score of 0.84 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1 strongly disagree and 5 strongly agree

• **KSUM Schemes**

The impact of KSUM schemes was measured adopting self-reported data, the reliability measured by using Alfa score of 0.77 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- never involved and 5- often involved.

• **Entrepreneurial Intention**

Entrepreneurial intention was measured adopting self-reported data, the reliability measured by using Alfa score of 0.81. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- strongly disagree and 5- strongly agree.

**Data Analysis & Results**

**Table 1 Convergent Validity**

Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
EE1	0.68	0.4624	0.5376			
EE2	0.72	0.5184	0.4816			
EE3	0.77	0.5929	0.4071			
EE4	0.69	0.4761	0.5239			
EE5	0.83	0.6889	0.3111			
EE6	0.88	0.7744	0.2256			
EE7	0.74	0.5476	0.4524	0.906	0.58	0.76
KSUM1	0.91	0.8281	0.1719			
KSUM2	0.84	0.7056	0.2944			
KSUM3	0.75	0.5625	0.4375			
KSUM4	0.76	0.5776	0.4224			
KSUM5	0.69	0.4761	0.5239			
KSUM6	0.64	0.4096	0.5904			
KSUM7	0.72	0.5184	0.4816			
KSUM8	0.71	0.5041	0.4959			
KSUM9	0.81	0.6561	0.3439			
KSUM10	0.66	0.4356	0.5644			
KSUM11	0.73	0.5329	0.4671	0.933	0.56	74
EI1	0.86	0.7396	0.2604			
EI2	0.74	0.5476	0.4524			
EI3	0.73	0.5329	0.4671			
EI4	0.81	0.6561	0.3439			
EI5	0.69	0.4761	0.5239			
EI6	0.72	0.5184	0.4816			
EI7	0.77	0.5929	0.4071			
EI8	0.68	0.4624	0.5376	0.912	0.57	0.75

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
EE	0.84	0.906	0.58
KSUM	0.77	0.933	0.56
EI	0.81	0.912	0.57

**Table 3 Discriminant Validity (By using AVE)**

	<b>Square root of AVE</b>	<b>EE</b>	<b>KSUM</b>	<b>EI</b>
<b>EE</b>	<b>0.76</b>	<b>0.76</b>		
<b>KSUM</b>	<b>0.74</b>	0.712	<b>0.74</b>	
<b>EI</b>	<b>0.75</b>	0.688	0.691	<b>0.75</b>

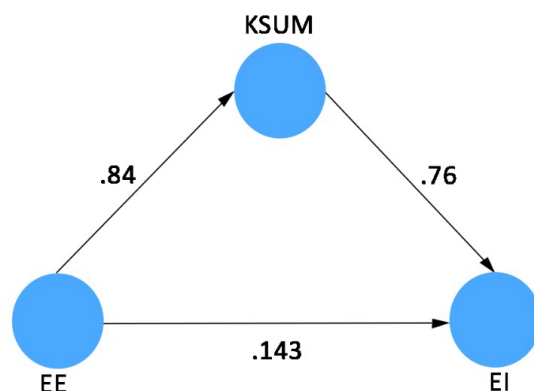
**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.41	DF	1
Chi-square	2.53	P Value	0.000
AGFI	.913	GFI	0.915
TLI	.901	CFI	.922
RMSEA	.015	RMR	0.016

All these scales were modified and validated specifically for the present research. Before testing the hypothesis, the construct validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), average variance extracted (AVE) and composite reliability (CR) was calculated. In the current study, AVE is more than 0.50, which means the observed variable's error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. As per convergent validity, each construct is more than 0.50. AVE for EE has an average construct of 0.58, KSUM has an average construct of 0.56, EI has an average construct of 0.57. Hence, we can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are > 0.9; hence, the constructs have an excellent model fit (Table 4).

**Direct Effect (Figure 2)**



**Table 5 Direct Effect**

Hypotheses	Path Relation	Original Sample	SE	T Values	P Values	Decisions
H1	EE→ EI	.143	0.012	2.201	0.00	Supported
H2	EE→ KSUM	.84	0.056	28.88	0.00	Supported
H3	KSUM→ EI	.76	0.021	21.53	0.00	Supported

**Hypothesis Testing**

As per Aiken and West (1991), all the constructs were mean-centred prior to the mediation analysis. Three Structural Equation Models (SEM) were created to analyze the mediation effect of KSUM on EE and EI by adopting the pattern as per Baron and Kenny (1986). As per the result, the direct effect observed between EE and EI ( $\beta=0.143$ ;  $p < 0.001$ ). hence H1 is accepted; The direct effect between EE and KSUM ( $\beta=0.84$ ;  $p < 0.001$ ). hence H2 is accepted. The direct effect between KSUM and EI ( $\beta=0.76$ ;  $p < 0.001$ ). therefore, H3 is accepted.

**Table 6 Mediation Effect**

Hypotheses	Associations	Direct Effect	Indirect Effect	Total Effect	VAF	Mediation
H4	EE→ EI	.143	0.638	0.781	81.74%	Full mediation

**Mediation Analysis**

The mediation analysis involves establishing the theoretical indirect relationships between constructs that is the mediating variable modify the direct path. Calculating the mediating effect enable the identification of through total relationship between the constructs. The significance of indirect effect is determent by the variance accounted for statistics (VAF) which calculate the influence of indirect effect on dependent variable or how much the dependent variable is explained by the indirect effect through mediator variable here the direct effect between EE and EI is 0.143, indirect effect 0.638 and total effect 0.781 and here the VAF is 81.74% so here KSUM Schemes have a full mediation effect on Entrepreneurial education on Entrepreneurial Intention . For hypothesis it is found that VAF value is more than 80% that shows full mediation and hence H4 is accepted.

**Implication**

Entrepreneurial education has an impact on entrepreneurial intention. KSUM support educational institutions to provide entrepreneurial development programmes for the college students in Kerala. The findings revealed that all the schemes of KSUM are very effective for supporting start-ups of college students. This study provides a knowledge base that helps investors assess their startup investments as well as young entrepreneurs in growing their businesses.

### **Discussions and Conclusions**

Kerala's younger generation is trying to work for themselves because there aren't many job prospects in the public and private sectors. This time, the Keralan government is encouraging young people without work to launch their own enterprises via a variety of programs. One such program that is used to carry out entrepreneurship development and incubation activities is Kerala Start Up Mission (KSUM), an entity of the Keralan government. Education in entrepreneurship fosters the development of innovative abilities, which are essential for future expansion. This study proves that entrepreneurial education has an impact on entrepreneurial intention. KSUM support educational institutions to provide entrepreneurial development programmes for the college students in Kerala. The findings revealed that all the schemes of KSUM are very effective for supporting start-ups of college students.

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**TECHNOLOGY AS A TOOL FOR HUMAN DEVELOPMENT: THE MODERATING INFLUENCE  
OF CULTURE AND BELIEF**

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**Abstract**

It's crucial to understand how culture and belief influence the adoption and use of technology, as well as how technology in turn shapes cultural and belief systems. Technology has the potential to revolutionize human development in numerous ways, from improving access to education and healthcare to fostering economic growth and innovation. However, the extent to which these advancements can be realized depends on cultural attitudes toward technology, as well as the compatibility of technological solutions with local belief systems. For example, in some cultures, traditional beliefs and practices may influence the acceptance and utilization of certain technologies. In such cases, understanding the cultural context is essential for the successful implementation and impact of technological interventions. Similarly, cultural values and norms can shape the ways in which technology is deployed and integrated into different aspects of society.

On the other hand, technology also has the power to influence and even reshape cultural and belief systems. The spread of information and ideas through digital platforms, for instance, can lead to cultural exchange and the transformation of traditional practices. At the same time, the introduction of new technologies can challenge existing belief systems and provoke societal debates about their implications. To navigate these complexities, it's important to consider the role of education and awareness in shaping attitudes toward technology within different cultural and belief contexts. By promoting digital literacy and understanding the potential benefits of technology, communities can make informed decisions about its adoption and use.

Moreover, collaboration between technology developers and local communities is crucial for ensuring that technological solutions are culturally sensitive and aligned with existing belief systems. This approach can help bridge the gap between innovation and tradition, fostering a more inclusive and sustainable path for technological advancement. In conclusion, the relationship between technology, culture, and belief systems is intricate and dynamic, with the potential to both empower and challenge human development.



**Materials and methods:** The study focussed on the test about the impact of technology towards human development along with the moderating role of culture. Here in this study data collected from 493 respondents all over Kerala state.

**Keywords:** Technology, transformation, belief, tradition

### **Introduction**

Preface Technology is an encapsulated creative agent of any country's artistic impact. Common man will be suitable to partake information seamlessly across bias and contact with them in a more fluently, using speech, handwriting and gestures People can numerous installations like reserving transportation and banking deals via mobile, indeed pay bills through Mobile; can transfer cash from one mobile to another Mobile. Nearly 95 per cent of those checking e-mail, while nearly three-fourth also use the web for job hunting. (Vijayakumari, 2008). Cultural changes brought about by the rapid free prolixity of the new dispatches technology in the globalized environment of the West. The main slant is from a cultural anthropological point of view, but it is inevitably also interdisciplinary due to the common ground participated with gospel philosophy, Psychology and sociology. The analysis intends to make some proffers on how to think about a European future, and how to intervene consciously in the current situation so that it keeps pace with the young, the so-called 'digital natives' (Prensky 2001).

When a human group comes into contact with new rudiment it arranges them inside an already existing pattern, thus modifying the order of what is already known. The preface of new Technologies, for example, has needed changes which required readjustment, or new articulations, of relations between the various fields of knowledge and the daily life of both the individual and the community. Technical revolutions have also turned out to be cultural revolutions, as witnessed by the changes wrought by inventions such as the wheel, the broom- machine etc., and also by the passage from an oral culture to a written one (Combi 1992).The media has its way of showing us detailed information when it comes to news channels, trip and other educational shows. Kids benefit from watching these, since it can boost tone- regard, heighten interest levels in a particular subject, or encourage them to ask relevant questions. We have a sense of what is happening around us, with a fair sapience about how effects on the globe. We can view the world through the television, even if we are embedded in one spot the whole time. It is a flight to places unknown, foreign, and magical with knowledge of what goes on around us without being physically present in that place. Culture is an extremely important context for human development and understanding development requires being able to identify which features of development are culturally based. This understanding is somewhat new and still being explored. Culture always plays a vital role in human development. Based on culture demand for development in human life varies. Culture makes cyclical impact on human development and technology.

### **Theoretical background and hypothesis**

#### **Technology& Human development**



Technology is defined as the application of knowledge to achieve practical goals in a reproducible way. It has brought significant changes in the society from prehistoric times. Technology contributed a lot in economic development and it improved human prosperity. It plays a pivotal role in human being's life span. It has an intensive role in both our personal and working lives. Human development is the process of enlarging people's freedom and opportunities and improving their well being. It is the process of growth and change that takes place between birth and maturity. In between these time period, technology plays an intensive role in human development. A study conducted in Yale University by (Ranis, 2011) states that technology when combined with human development increases economic growth. The relationship between technology and human development is an intensive one and ICT is a critical instrument for human growth. Another study by (Muchdie, 2016) declares that technology has a positive impact on human development through poverty reduction and economic growth. An article written by (Ekejiuba, 2021) exposes that technology brought a positive impact in the lives of Nigerian people. It created numerous job opportunities in various parts of the world which will definitely bring human development. ICT has also improved the livelihood social and economic well being of people. (Shade et al. 2012) in their investigation found out that ICT has a serious impact on almost all sectors especially in human development. It empowers human beings which in turn brings an active participation of human beings in the society. With the development of ICT societal transformations has taken place. The rapid development of IVT has deeply affected human activities (Nguea, 2023). Hence, we see that technology positively impacts human development.

### **H1: Technology substantially impacts on human development.**

#### **Technology & Culture**

When a human group encounters new elements, such as new technologies, it tends to integrate them into existing patterns, thereby modifying the existing order of knowledge and daily life. The introduction of new technologies often necessitates a reevaluation and adjustment of relationships between various fields of knowledge, as well as changes in individual and community lifestyles. Technical revolutions are indeed closely intertwined with cultural revolutions. Major inventions throughout history, like the wheel and the steam engine, have led to transformative changes in societies. These changes go beyond the mere functionality of the technologies themselves and ripple through various aspects of culture, including social structures, economic systems, and value systems. (Combi 1992). The rapid diffusion of new communications technology in the globalized context of the West has undoubtedly brought about significant cultural changes. From a cultural anthropological perspective, studying these changes requires an interdisciplinary approach, drawing from fields such as philosophy, psychology, and sociology. This multidisciplinary analysis can help us better understand the impact of technology on culture and society (Prensky 2001). The concept of closure in research and development of technology does not imply that further improvements to that technology cannot occur. Closure signifies the end of controversies and disagreements between social groups regarding the effectiveness of the technology, rather than indicating that it is the optimal or most refined solution. This is referred to as "black boxing" by Callon, Latour, and Law. (Bijker & Law 1992). Nowadays, people can perform a wide range of tasks using their mobile devices. They can book tickets, pay bills, transfer money, check emails, and even hunt



for jobs using their mobile phones. These activities have become convenient and accessible due to the advancement of mobile technology. (Vijayakumari, 2008)

The adoption of new technologies can have a significant impact on the culture of a society. As you mentioned, advancements in transportation technology like cars, airplanes, and ocean liners have had a profound effect on the tourism industry and the services offered to tourists. Cultural change should be viewed as a part of a broader historical process, where economic, political, and institutional factors also play a critical role. Technological advancements often lead to changes in the way people live, work, and interact with each other, which in turn can shape and transform cultural norms and values. For example, the widespread use of the internet and social media has changed the way people communicate and share information, resulting in shifts in cultural perspectives on privacy, social interactions, and the dissemination of knowledge. It's important to recognize that technology and culture are intricately linked, and the adoption of new technologies can bring about both positive and negative cultural changes. Understanding this connection can help societies navigate and adapt to the shifts brought about by technological advancements. (Murphie & Potts 2003:17)

## **H2: Culture substantially impacts on technology**

### **Culture and Human Development**

The term culture has been used in a variety of formal and informal ways, but a widely accepted definition has been remarkably difficult to achieve. Human development is always associated with the culture where they are living or brought up. The Culture and human development are inter-connected, in a positive aspect, the culture leads to the development and by negative relationship, culture prevents development. The culture is said to be the ideas, beliefs, knowledge, values and the understanding of the members of a society. The process of both are inter twinned. Development happens according to the changes that may happened in the socio-economic and cultural scenarios.

Actually, when we are looking to a society on its development, the participation of a child is entirely different from the other. Some society gets more accessibility to technology and they will be updated and developed that will be their standard of living and it's become a culture. At the same time, many of the marginalized people are still unaware of the technology and its updates and they are ignorant of that only because their culture never demands such a change. Human development can be valued with many criterias like communication, health and education. By this we can see the increasing capacities of each individual and we can place the human as the centre for evaluating the development. If a community stands backward in any perspective in that above mentioned key factors, obviously the human development will be inversely affected.

## **H3: Culture and Human development are inter-related**

### **Technology, Culture and Human Development among academic community**

Human development is a process of expanding the range of human beings' life choices, which enlarging people's opportunities for Knowledge, Communication and span of life with good health expands human skill

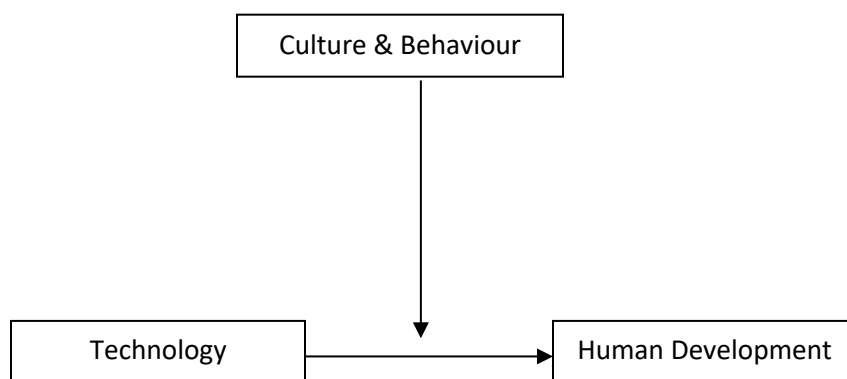




and ability. People Choices entirely depends on their culture adopted from a sound physical environment with social, political and economic freedom. Life expectancy is a parameter of human development and it is depending on modern technologies introduced and being influenced by the culture of human. Culture will make changes on human demands and desires, that is when the creative influence lie. Technological development of a nation associated with the cultural evolution of country. Technology is determined by nation's cultural demands and pre occupation also the impact of existing environment of the society. Nomadic culture has no use of technical development in life. Nomadic pastoralism is still practiced in rare environment. Gypsies having an itinerant way of life is a live example for nomadic culture. In this modern era, itself, access to, and use of, technology in many developing countries is extensively an urban phenomenon. This, in combination with cultural factors, can result in 'usage gaps' (Van Dijk and Hacker 2003) and leave some groups without access, e.g., female, differently abled and vulnerable people living in poverty, and the old aged one (Kvasny et al. 2006; ITU 2015b). Human development—which holds parallels with the nature conservation sector—has seen a proliferation of innovation in technological development. Throughout this Perspective, we consider what nature conservation can learn from the introduction of digital technology in human development (Georgina Maffey et al 2015). Technology is a potential tool for nation to expand human life and it is influenced by the cultural values of the country (Prakrit silal. et al 2021). Domains such as communication, education and health have taken up the notion of empowerment, and continue to explore the use of technology as a facilitator of attitudinal or behavioral change—e.g., investment in telemedicine (Rosser et al. 2009). But in a certain extent technology can equally be used as a tool to negatively influence human development (cf. Weeramantry 1993). A nation which has a positive culture can easily and fairly adopt technology and to boost their life style. Like many other societal domains, the environmental sciences have embraced digital technology to manage information and enhance analytical power (Stafford et al. 1994, p. 3). On the background of these reviews can belief confidently that by exercising positive culture will moderate technology and human development among academic community.

#### H4: Culture will moderate technology and Human development

##### Conceptual Framework (Figure 1)





### **Data collection and population**

A pilot study was executed through the general public in Kerala. Two hundred respondents were chosen for this survey. The validity and reliability of the measurement scales were verified. Based on the feedback from the respondents, minor corrections were made to the questionnaire. The convenient sampling technique (Kothari, 2004) was employed for this research, A total of 1000 questionnaires were circulated through google forms to the general public in Kerala. With an assurance statement of privacy and anonymity of the responses. A total of 820 responses were received (82%); out of this, 327 were rejected due to missing data. After the aforesaid moderate rate of rejection, 493 accurate responses (60.1%) were considered reasonably good because of the study's nature. The sample included 295 (59.8%) female and 198 (40.2%) male respondents; 96 (19%) was in the age group of less than 20, 163 (33.1%) were in the age brackets of 20-40, 173 (35.1%) were in the age group of 40-60, 61(12.3%) were in the age group of above 60. The majority of the population are graduates 212(43%) The monthly income of majority of the respondents are in between 50000 – 100000 196 (39.75%). Majority of the respondents are private employees 216 (43.8%).

### **Measurement**

#### **Technology**

Technology was measured adopting self-reported data, the reliability measured by using Alfa score of 0.88 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- not influence and 5 highly influence

#### **Culture & Behaviour**

Culture & Behaviour was measured adopting self-reported data, the reliability measured by using Alfa score of 0.82 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

#### **Human Development**

Human Development was measured adopting self-reported data, the reliability measured by using Alfa score of 0.79. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

**Table 1 Convergent Validity**

Constructs	$\lambda$	$\lambda^2$	1- $\lambda^2$	CR	AVE	Square root of AVE
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TE1	0.86	0.7396	0.2604			
TE2	0.84	0.7056	0.2944			
TE3	0.91	0.8281	0.1719			
TE4	0.92	0.8464	0.1536			
TE5	0.79	0.6241	0.3759			
TE6	0.81	0.6561	0.3439			
TE7	0.78	0.6084	0.3916	0.946	0.715	0.845
CB1	0.92	0.8464	0.1536			
CB2	0.83	0.6889	0.3111			
CB3	0.87	0.7569	0.2431			
CB4	0.89	0.7921	0.2079			
CB5	0.79	0.6241	0.3759			
CB6	0.83	0.6889	0.3111			
CB7	0.77	0.5929	0.4071			
CB8	0.86	0.7396	0.2604			
CB9	0.82	0.6724	0.3276	0.956	0.711	0.843
HD1	0.92	0.8464	0.1536			
HD2	0.83	0.6889	0.3111			
HD3	0.86	0.7396	0.2604			
HD4	0.88	0.7744	0.2256			
HD5	0.84	0.7056	0.2944			
HD6	0.81	0.6561	0.3439			
HD7	0.85	0.7225	0.2775			
HD8	0.79	0.6241	0.3759	0.953	0.719	0.848

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
TE	0.88	0.946	0.715
CB	0.82	0.956	0.711
HD	0.79	0.953	0.719

**Table 3 Discriminant Validity (By using AVE)**



	Square root of AVE	TE	CB	HD
TE	0.845	0.845		
CB	0.843	0.732	0.843	
HD	0.848	0.711	0.763	0.848

**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.03	DF	1
Chi-square	3.12	P Value	0.000
AGFI	.926	GFI	0.901
TLI	.932	CFI	.942
RMSEA	.012	RMR	0.015

### Analysis and results

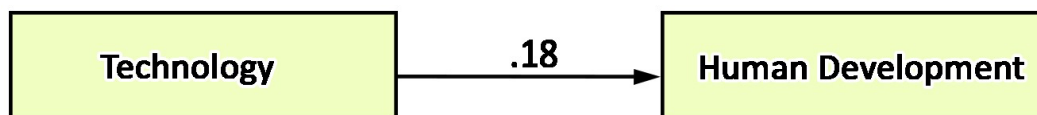
All these scales were modified and validated specifically for this research. Prior to testing the hypothesis, the construct validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), average variance extracted (AVE) and composite reliability (CR) was calculated. In the current study, AVE is more than 0.50, which means the observed variable's error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were practiced. As per convergent validity, each construct is more than 0.50. AVE for TE has an average construct of 0.715, CB has an average construct of 0.711, HD has an average construct of 0.719. Hence, we can assure all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs.

After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square



error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are  $> 0.9$ ; hence, the constructs have an excellent model fit (Table 4).

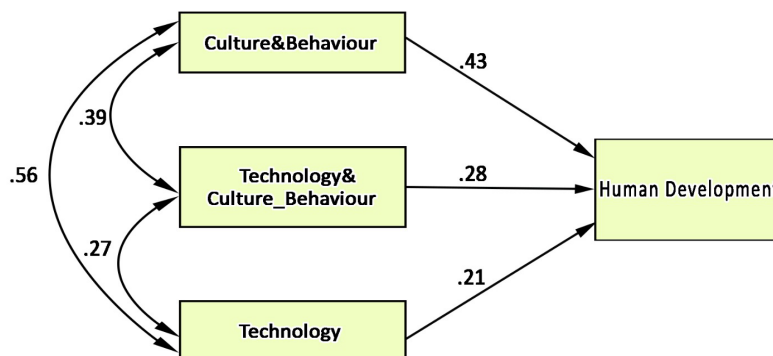
### Direct Effect (Figure 2)



**Table 5 Direct Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H1	TE → HD	0.18	0.052	3.12	0.00	Supported

### Moderating Effect (Figure 3)





**Table 6 Moderation Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H2	TE→ HD	0.21	0.032	4.66	0.000	Supported
H3	CB → HD	0.43	0.013	8.14	0.011	Supported
H4	TE_CB→HD	0.28	0.068	4.96	0.000	Supported

### Hypothesis testing

As per Aiken and West (1991), all the constructs were mean-centered prior to the moderation analysis. Three Structural Equation Models (SEM) were created to analyze the moderating effect of CB on TE and HD by adopting the pattern as per Baron and Kenny (1986). As per the result, a substantial positive correlation is observed between TE and CB ( $r=0.56$  and  $p < 0.01$ ), hence H5 is accepted;

**Moderator – CA:** Figure 3, evaluated the independent variable’s impact on the dependent variable; measured the impact of moderating variable on the dependent variable; verified the interaction effect and its impact on the dependent variable, while Figure 2 exhibits, direct impact of TE to HD ( $\beta = 0.18$ ;  $p < 0.01$ ); thus, H1 is accepted. Figure 3 shows that the moderation effect of CB with the relationship of TE on HD. The TE on HD shows a positive impact ( $\beta = 0.21$ ;  $p < 0.01$ ). Therefore, H2 is accepted. The moderator CB as has a positive impact on HD ( $\beta=0.43$ ;  $p < 0.01$ ). Therefore, H3 is accepted. The interaction term between TE and CB was positively connected to HD ( $\beta=0.28$ ;  $p < 0.01$ ). Therefore, H4 is accepted.

### Implications & Discussion

This study is conducted among academic community those who are directly involved in society for the use of technology for the development of human life with the moderating impact of culture and belief. Technology has made it possible for people from all walks of life to have access to different resources. Further, technology is also being used to equip people who need a certain type of assistance to improve their quality of life and help them avail opportunities that would otherwise be inaccessible. Technology also has made it possible for people to access education and training, no matter where they live. Medical Advancements: With the help of technology, doctors and researchers have made significant strides in treating and preventing diseases.

The effects of technology on society have been both positive and negative. While technology has made it easier to connect with others, access information, and improve medical care, it has also led to job loss, cyber bullying, and technology addiction. As we move forward, it will be essential to consider the potential impacts of new technological advancements and work to mitigate any negative effects. Ultimately, it is up to all of us to ensure that technology is used in a way that benefits society as a whole.



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**EXAMINING THE IMPACT OF ORGANIZATIONAL CULTURE ON DISPUTE RESOLUTION: A  
MODERATION ANALYSIS OF WHISTLE BLOWING SYSTEM**

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**Abstract**

**Purpose** - Enhancement of productivity has become common slogan in every industry irrespective of the types of resources employed. Disputes resolution in industry can boost the utilization efficiency of scarce inputs. In this scenario, the history of industrial productivity reflects some crucial independent role of work culture and the whistle blowing system employed being the moderating factor. The prime objective of this paper is to find and analyze the nature of relationship among these factors. The study also throws light on how the improved work culture along with efficient whistle blowing system positively impacting on industrial ability to resolve disputes among staff members and management.

**Design/Methodology/Approach** - Research conducted on a sample of 640 employees working in IT industries in Bangalore and Hyderabad. This study measured the influence of an organizational culture on the resolving various disputes among the employees in the organization and how effectively whistle blowing system functions. Statistical analysis is practiced to find out whether organizational culture along with the whistle blowing system on dispute resolution.

**Findings** - In this research substantial association was established between variables such as work culture and dispute resolution (factor. 32) work culture and whistle blowing system. The research validates that the work culture along with whistle blowing influences the dispute resolution in the organization. On testing the hypothesis, the results shows that the dependent variable, namely dispute resolution is substantially predicted by work culture directly and through specific moderating variable whistle blowing adaptation at a 95% of level of significance.

**Originality/Value** - This study explores the impact of organization culture of the firm, with the moderating variable of whistle blowing system, which has not been examined theoretically and tested thoroughly on the context of dispute resolution among the IT employees.



**Key Words** - Organizational Culture/Work Culture, Dispute Resolution, Whistle Blowing system

## **Introduction**

The attitude and behavior of an employee is carved out on the basis of the organizational culture it falls into. There are various factors that contribute and decide how an organization culture shapes, such as aim, mission, goal, vision, policies, working environment, leadership. The most common organizational culture found in the IT Industries are, the people-oriented, which offers a friendly culture known as clan culture, the process-oriented, which lays a proper structure known as hierarchy culture, the dynamic entrepreneurial culture known as adhocracy culture and the competitive culture which is result-oriented known as market culture.

A well-built organizational culture plays a very important role in resolving the disputes in IT companies. Although disagreements and disputes take place between the IT employees, it is an organizational culture that sets one organization apart from another, by addressing its people to understand and resolve conflict among them. In a positive organizational culture, the managers can take vital steps to reduce the disagreements among the employees which results in conflicts, and make them aware and experienced about working in harmony.

In giant IT organizations, it might be a bit challenging to observe and identify each and every discomfort or disagreements from employee's part. There comes the role of a whistle blower in an organization, who is assigned officially/unofficially to report any suspected misconduct, illegal acts or failure to act within the council. This whistle blowing system helps and encourages the employees to come forward and voice their concerns.

## **Review of Literature**

### **Work Culture and Dispute Resolution (WB-DR) (Direct Effect)**

There is a vital role of Organizational Culture in shaping dispute resolutions within a workplace. Organizational Culture holds dimensions that are communication patterns, leadership styles, and values, which directly influence how conflicts are perceived, managed, and resolved (Barney, 1986). One of the critical components of a positive work culture are trust and open communication, that supports effective dispute resolution. Research suggests that high levels of trust and transparent communication can facilitate in resolving conflicts (Dirks & Ferrin, 2002). Organizational justice and fairness are yet another factor of a positive work culture that directly influence dispute resolution. A fair work culture contributes employees to comply and accept with the outcome of dispute resolutions processes (Greenberg, 1987). Conflict resolution style depends on the cultural value and norms of an organization. Research has identified variations in conflict resolution approaches across cultures, with some cultures emphasizing direct confrontation while others favour indirect strategies to preserve harmony (Thomas, 2008). Organizational climate sets the stand for how conflicts are addressed within an organization. Organizational culture and its leadership style, characterized by vision, empathy, and empowerment, has been associated with more constructive approaches to conflict resolution directly (Avolio et al., 1999). Also, in a work culture which follows inclusiveness, encourages employee participation and involves in more productive functions and are more likely to foster creative problem-solving and innovative conflict resolution strategies (De Dreu & West, 2001). The legal and ethical dimensions of dispute resolution require organizations to adhere



to regulatory requirements and ethical standards. Research highlights the importance of integrating legal compliance with ethical decision-making to promote organizational integrity and accountability (Kaptein, 2011).

**H1: There is a significant impact of Work Culture directly on Dispute Resolution.**

### **Work Culture and Dispute Resolution (WB-DR) (Moderation Effect)**

There are many wrongdoings in the world today, including instances of sexual harassment, fraud, and corruption. When it comes to giving an organization the initial boost it needs to address difficulties, whistleblowing concerns remain the most effective fraud detection approach. Therefore, disclosing information regarding wrongdoing and corruption within an organization or workplace is known as whistleblowing. Most of the time, the information is delicate, which could put the whistle blower in danger. Whistleblowing efficacy is being moulded by both the whistle blowers and the recipient organisation (Lai & Wong, 2015). Whistle blowing system plays a vital role as a moderating factor in the relationship between work culture and dispute resolution. This is because employees work without any fear and discomfort and employees feel empowered (Miceli & Near, 1992). The impact of whistle blower moral reasoning on financial statement deception intents has been investigated in research. The impact of two moral reasoning markers on exposing misconduct either internally or externally is examined in this study. In the context of corporate governance, this study looks at moral commitment, ethical judgment, and whistle blower objectives. Pakistani and developed country laws, customs, and international conventions were examined using a qualitative approach. The results also imply that whistleblowing intention is positively correlated with the ethical issue's acknowledgment, perceived significance, and ethical judgment. Additionally, locus of control has influenced the relationship between the intention to whistle blower and ethical decision-making in a good way (Naheeda Ali, 2022)

**H2: There is a significant impact of Work Culture on Dispute Resolution with moderation effect.**

### **Whistle Blowing System and Dispute Resolution (WB-DR)**

Dispute resolution or dispute settlement is the process of resolving disputes between parties. The process of dispute resolution is also known as alternative dispute resolution, appropriate dispute resolution or ADR. The process can be used to attempt the resolution of most business disputes without parties needing to attend court. Dispute resolution is often a multistep process that can start with negotiation, move on to mediation, and, if necessary, end in arbitration or litigation. This progression allows parties to start off, quite naturally, with less-expensive, less-formal procedures before making bigger commitments of money and time. Dispute resolution is often a multistep process that can start with negotiation, move on to mediation, and, if necessary, end in arbitration or litigation. This progression allows parties to start off, quite naturally, with less-expensive, less-formal procedures before making bigger commitments of money and time. Whistleblowing is “the revelation by organization members (former or current) of illegal, immoral, or illegitimate practices under the control of their employers, to persons or organizations that may be able to carry out action” (Near & Miceli, 1985, p. 4). An internal whistleblowing system is an early-warning system for identifying and combating maladministration and forms the basis for successful risk management. Informants can pass on information within a fully internal



system, keeping the information from leaking to external sources and thus avoiding reputation damage to the company. For employers “internal whistleblowing is an important mechanism by which they maintain control over the firm and protect its resources” (Stikeleather, 2016, p. 3). For employers “internal whistle-blowing is an important mechanism by which they maintain control over the firm and protect its resources” (Stikeleather, 2016, p. 3). For employers “internal whistleblowing is a prime device by which they maintain control over the firm and protect its resources” (Stikeleather, 2016, p. 3) An employee or other stakeholder perceiving maladministration or misconduct in his organization go through a process until he chose to disclose his facts by blowing the whistle (Vandekerckhove & Phillips, 2019; Zhang, Chiu, & Wei, 2009). The initial pace in this whistleblowing process is the decision of whether or not to reveal the information. This decision is affected by situational, personnel, and organizational factors and things (Kölbel & Herold, 2010; Mesmer-Magnus & Viswesvaran, 2005). Regulators, other employees and managers, and public interest organizations, greatly invested in the concerns elevate by the whistle-blower and in the expectations for how issues should be raised and addressed in the future, are forced to trust a resolution of issues that has innate public interest implications but that is reached and complete in a black box. Employees who blow the whistle on wrongdoing present our best warning system for stop even bigger problems, but they too often bear the bad injustice in the course of taking ethical, courageous action. Our legal system, and the public as a whole, owes them more (Dana L. Gold, 2013).

**H3: There is a significant impact of Whistle Blowing System on Dispute Resolution.**

#### **Work culture and whistleblowing together impact and Dispute resolution (WC\_WB-DR)**

Work culture has a crucial role in the conflict resolution of an organization. Work culture has been analysed in some classic conflict resolution techniques. Culture is connected to conflict and conflict resolution. Culture influences on the process of conflict management and models have been evolved on conflict management based on culture framework (Kamil Kazam M, 1997). A constructive approach has been adopted by researchers while studying the influence of work culture on dispute resolutions that guide negotiators’ judgements and decisions (Michael Morris, 2000). Studies reveal the differences between internal work culture in public and private sector organizations in India. The prevailing socio-cultural environment and enterprise variables affects the internal work culture which in turn influence the human resource management practices in dispute resolution (Purnima Mathur et al., 1997). For fostering transparency, promoting integrity and detecting misconduct whistleblowing and protection of whistle blower is essential. The Organization for Economic Cooperation and Development (OECD) has two decades experience in guiding countries to improve the whistle blowing process and maintain good work culture. Perceived seriousness of wrong doing increases the individuals’ willingness to blow the whistle and the more the wrongdoing behaviour in work culture the more chance for emergence of whistle blowers (Dr. Amna Ali et al., 2022). However, whistleblowing research in India is still in its infancy. There is the need for the convergence of regulatory mechanisms and reforms incentives and award systems for promoting whistle blowing activities (Sweta Mehrotra et al, 2019)

**H4: There is a significant impact of the product of Work Culture and Whistleblowing System on Dispute Resolution.**

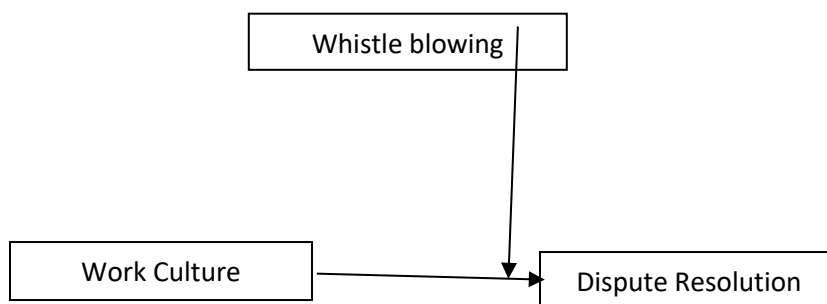


### Work Culture and Whistle Blowing System (WC-WB)

The prime concern of any organization is to inculcate good work culture through which it aims to control wrongdoings. For materializing this objective, whistleblowing system is promoted which helps in drawing attention of the management towards wrongdoing and wrongdoers. An efficient whistleblowing system go hand in hand with upgraded work culture that has been existing in the industry. For an effective whistleblowing system, organizations need to develop an ethical corporate culture. In such culture employees become ethical partners and do the right thing, not because they have to, but because they want to (Saira Farooqi et al, 2017). In the educational research conducted in Turkey a good relationship has been found between whistle-blowing and organizational loyalty in educational institutions. Organizational work culture deteriorates in the absence of whistleblowing system in the form of wasting school resources, using official position for personal interest, wasting of financial resources and so on. However, the whistleblowing intension increases with the inculcation of a well-disciplined work culture by senior teachers. Also, the study revealed a positive correlation between a good whistleblowing system and job satisfaction (Asiye Toker Gokce, 2013). The employees who perceive unethical corporate culture is less likely to communicate a questionable behaviour to the authorities as he senses that the organization and other co-workers are aware of it and also feel no personal obligation to report the incident. Organizational culture influences whistleblowing behaviour and affect reports of wrongdoing among employees (King G, 2000). Whistle blowers should be allowed to act as organizational citizens through a redefinition of organizational loyalty as rational loyalty. Then perceiving organizational wrongdoing would compel the loyal employee to blow the whistle. The work culture has to be enhanced to facilitate the disclosure of bad news by implementing whistleblowing procedure (Vandekerckhove and Commers, 2004). Seven dimensions of organizational culture in terms of its relation with reporting of organizational wrong doing have been explored. They comprise of vigilance, engagement, employee's belief in ethical values, accountability, level of empowerment of employees by the organizational culture, inculcation of courage in employees and provision of feasible options for raising concerns (Berry, 2004). Thus, a transformed work culture facilitate whistle blowers in their role as corporate citizens and their positions should be protected and regulated. The institutionalization of whistleblowing in the form of organized disclosure of information is an integral part of refined work culture.

**H5: There is a significant relationship between Work Culture and Whistleblowing System.**

#### Conceptual Framework (Figure 1)







## Data Collection Population

A pilot study was executed in two IT hubs of India Bangalore and Hyderabad. These locations were identified based on the greatest number of IT industries in India. One hundred twenty employees of IT industry were selected for this survey. The validity and reliability of the measurement scales were verified. Based on the feedback from the respondents, minor corrections were made to the questionnaire. The purposive sampling technique (Kothari, 2004) was employed for this research, and as mentioned above, two Indian IT hubs were selected for collecting data. A total of 800 questionnaires were circulated through google forms to the employees of IT industry with an assurance statement of privacy and anonymity of the responses.

## Population

A total of 640 responses were received (77.5%); out of this, 214 were rejected due to missing data. After the aforesaid moderate rate of rejection, 426 accurate responses (66.5%) were considered reasonably good because of the study's nature. The sample included 179 (42%) female and 247 (58%) male employees; 152 (35.5%) were in the age brackets of 20-30, 105 (24.6%) were in the age group of 30-40, 96(22.5%) were in the age group of 40-50 and the remaining 73 (17%) were 50 years of age. The majority of the population stayed with their family 246 (57.5%)

## Measuring Instruments

- **Work Culture**

Work culture was measured adopting self-reported data, the reliability measured by using Alfa score of 0.86 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and five highly agree

- **Whistle blowing**

Whistle blowing was measured adopting self-reported data, the reliability measured by using Alfa score of 0.91 and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

- **Dispute Resolution**

Dispute Resolution was measured adopting self-reported data, the reliability measured by using Alfa score of 0.86. and normality tested by using skewness and kurtosis it is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

## Data Analysis and Results

### Table 1 Convergent Validity



Constructs	$\lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
WC1	0.76	0.5776	0.4224			
WC2	0.71	0.5041	0.4959			
WC3	0.83	0.6889	0.3111			
WC4	0.86	0.7396	0.2604			
WC5	0.77	0.5929	0.4071			
WC6	0.76	0.5776	0.4224			
WC7	0.73	0.5329	0.4671			
WC8	0.71	0.5041	0.4959	0.91	0.58	0.76
WB1	0.88	0.7744	0.2256			
WB2	0.91	0.8281	0.1719			
WB3	0.78	0.6084	0.3916			
WB4	0.73	0.5329	0.4671			
WB5	0.82	0.6724	0.3276			
WB6	0.89	0.7921	0.2079			
WB7	0.76	0.5776	0.4224			
WB8	0.74	0.5476	0.4524			
WB9	0.81	0.6561	0.3439			
WB10	0.85	0.7225	0.2775			
WB11	0.76	0.5776	0.4224	0.95	0.66	0.81
DR1	0.74	0.5476	0.4524			
DR2	0.79	0.6241	0.3759			
DR3	0.88	0.7744	0.2256			
DR4	0.91	0.8281	0.1719			
DR5	0.86	0.7396	0.2604			
DR6	0.85	0.7225	0.2775			
DR7	0.92	0.8464	0.1536			
DR8	0.76	0.5776	0.4224			
DR9	0.83	0.6889	0.3111	0.96	0.7	0.83

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
WC	0.79	0.91	0.58
WB	0.83	0.95	0.66





DR	0.89	0.96	0.7
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**Table 3 Discriminant Validity (By using AVE)**

	Square root of AVE	WC	WB	DR
WC	<b>0.76</b>	<b>0.76</b>		
WB	<b>0.81</b>	0.67	<b>0.81</b>	
DR	<b>0.83</b>	0.59	0.76	<b>0.83</b>

**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.46	DF	1
Chi-square	2.02	P Value	0.000,
AGFI	.933	GFI	0.902
TLI	.901	CFI	.911
RMSEA	.043	RMR	0.032

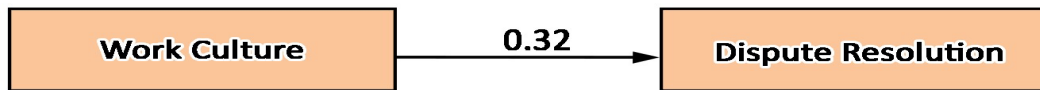
## Analysis and Results

All these scales were modified and validated specifically for the present research. Before testing the hypothesis, the construct validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), average variance extracted (AVE) and composite reliability (CR) was calculated. In the current study, AVE is more than 0.50, which means the observed variable's error is within limits. For ensuring the overall construct validity, convergent validity analysis and discriminant validity analysis were executed. As per convergent validity, each construct is more than 0.50. AVE for WC has an average construct of 0.58, WB has an average construct of 0.66, DR has an average construct of 0.7. Hence, we can affirm all constructs have the required convergent validity and good discriminant validity. The square root of the AVE is also higher than the correlation of the constructs. Hence, acceptable standards of discriminant validity exist among the constructs. After ensuring the construct validities, the conceptual model was identified; a confirmatory factor analysis based on two parameters, Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as



proposed by Henseler et al. (2015), was executed. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are > 0.9; hence, the constructs have an excellent model fit (Table 4).

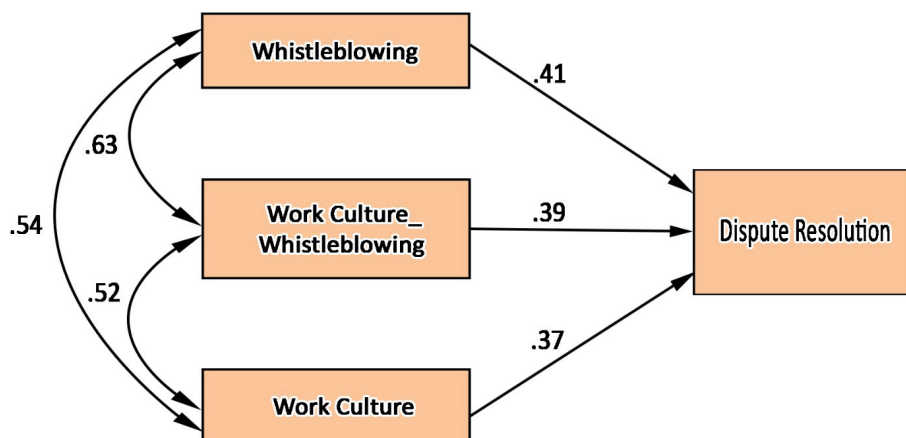
**Direct Effect (Figure 2)**



**Table 5 Direct Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H1	WC → DR	0.32	0.066	6.511	0.00	Supported

**Moderating Effect (Figure 3)**





**Table 6 Moderation Effect**

Hypotheses	Associations	Factor loading	SE	T Values	P Values	Decisions
H2	WC → DR	0.37	0.026	7.126	0.000	Supported
H3	WB → DR	0.41	0.051	7.896	0.000	Supported
H4	WC_WB → DR	0.39	0.077	7.683	0.013	Supported

## Hypothesis Testing

As per Aiken and West (1991), all the constructs were mean centred prior to the moderation analysis. Three Structural Equation Models (SEM) were created to analyse the moderating effect of WB on WC and DR by adopting the pattern as per Baron and Kenny (1986). As per the result, a substantial positive correlation is observed between WC and WB ( $r=0.54$  and  $p < 0.05$ ), hence H5 is accepted;

## Moderation Analysis

Figure 3, evaluated the independent variable's impact on the dependent variable; measured the impact of moderating variable on the dependent variable; verified the interaction effect and its impact on the dependent variable, while Figure 2 exhibits, direct impact of WC to DR ( $\beta = 0.32$ ;  $p < 0.05$ ); thus, H1 is accepted. Figure 3 shows that the moderation effect of WB with the relationship of WC on DR. The WC on DR shows a positive impact ( $\beta = 0.37$ ;  $p < 0.05$ ). Therefore, H2 is accepted. The moderator WB as has a positive impact on DR ( $\beta=0.41$ ;  $p < 0.05$ ). Therefore, H3 is accepted. The interaction term between WC and WB was positively connected to DR ( $\beta=0.39$ ;  $p < 0.05$ ). Therefore, H4 is accepted.

## Suggestion for Future Research

Future research endeavours could benefit if they explore the role of technology in facilitating whistle-blowing processes and enhancing transparency. They can examine the implications of legal protection for whistle-blowers on organizational responses. Additionally, longitudinal studies can be conducted, by examining, how changes in work culture and whistle-blowing system impacts on the dispute resolution processes, over a period of time. Further, they can study the point of view of the various stakeholders of the organization, in understanding the complexity of ethical decision-making and dispute resolution.

## Implication of the Study

In the study of the influence of work culture in the dispute resolution of corporate sector, our core focus was on the moderating role of whistle blowing system variables like unbiased and diligent reporting system, fast



redressal procedure, efficient legal protection and counselling. The study also contributes to the literature that an effective and efficient whistle blowing system is an essential pre-requisite to propel the strength of relation between work culture and dispute resolution. The analytical revelation of positive correlation existing between work culture and dispute resolution has grounded to the theory that transformation of work culture is an inevitable element for an easy dispute resolution. The findings of this study have crucial implications in the personnel management policies of IT and other corporate sectors.

## Discussion and Conclusion

Organizations are led by capable individuals who inspire their workforce and don't hesitate to implement changes that will affect them, they can effectively achieve their objectives. Leaders can improve employee performance by implementing a transformational leadership style. In the dynamic context, certain adjustments made during the adoption of the best organizational culture should be addressed. Establishing a pleasant physical environment can aid in cultivating a mindset that inspires workers to raise their game and accomplish organizational objectives. One preventative strategy to lessen the possibility of wrongdoing and inconsistencies is whistleblowing. If workers and other important stakeholders are empowered to report issues when they arise, managers are more likely to spot irregularities early on. Establishing a secure corporate whistleblowing system or hotline and creating policies and procedures for reporting misconduct are two actions that companies that take seriously in enforcing their code of conduct will take to facilitate whistleblowing (Dr. Amna Ali Et al).

Experts in a wide range of disciplines have looked into and acknowledged the whistleblowing strategy as a means of revealing wrongdoing in companies. This study, which is based on the theory of planned behaviour, uses a sample of IT industry workers. We investigate the effects on whistleblowing intention of perceived wrongdoing seriousness and perceived threat of retaliation, as well as the moderating roles of rationalization and anticipated regret (Ajzen 2014). Thus, one can hardly exaggerate the role of whistle blowing system as a moderating factor in the direct relationship between work culture and dispute resolution in industries.

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## EXPLORING FARMERS PERCEPTION TOWARDS THE APPLICATION OF ARTIFICIAL INTELLIGENCE – BASED CROP PROTECTION IN AGRICULTURE WITH SPECIAL REFERENCE TO KERALA

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### **Abstract**

**Purpose** - The present study focusses on the possibilities of Artificial intelligence in increasing crop protection in the field of agriculture. Artificial intelligence being the most modern technology that provides revolutionary changes in all walks of life, can also be positively utilized in the field of agriculture. The study has used questionnaires to collect data. Appropriate statistical measures were used to achieve the research objectives. The study draws positive conclusion from the part of agriculturists regarding the introduction of Artificial intelligence in the field of cultivation fir crop protection.

**Design/Methodology/Approach**- A research study was conducted to examine the impact of Artificial Intelligence on agricultural research study was productivity via its role in crop protection, with a focus on farmers in Kerala. Data was gathered through a questionnaire administered to 720 farmers. Structural equation modeling, recognized as a robust multivariate analytical technique, was employed in this investigation.

**Findings** - The primary aim of this research is to define Artificial Intelligence and assess how it is perceived by farmers in Kerala regarding its impact on Agricultural Productivity. The study revealed that farmers believe that there is a positive correlation between Artificial Intelligence and Agricultural Production, particularly through its role of crop protection. This investigation delves into how Artificial Intelligence can contribute to large –scale agricultural production and role in assessing and managing soil nutrition. Furthermore, the study identified direct relationship between Artificial Intelligence and agricultural production as well as between Artificial Intelligence and crop protection, and crop protection and agricultural production. Therefore, Crop Protection found to partially mediate the effect of Artificial Intelligence on Agricultural Production as indicated by a VAF value falling between 20% and 80%, signifying partial mediation.

**Originality/Value** - The study examines the connection between Artificial Intelligence and Agricultural Productivity in Kerala, focusing on the mediating role of Crop Protection among farmers, using both theoretical and empirical approaches.

**Key words** - Artificial Intelligence, Agricultural Productivity, Crop Protection



## **Introduction**

Agricultural sector is crucial to an economy. it brings attention and interest across the globe. With the growth of population, the need for food and employment is increasing quickly. But its productivity is very low due to climate change and crop destruction. Artificial Intelligence is needed to boost Agricultural Productivity by using 8 spray nozzles for spray pesticides. (Muhammad Babar Malook.et.al-June 2023). Another study discussed that Indian cultivators faces many challenges like pests, natural calamities, wild animals attack etc. which led to decline in Agricultural Productivity. So, Crop Protection is essential to enhance productivity. (Virendra kumar. June 2023) Machine Learning (ML) and other emerging technologies to solve the challenges of crop protection. Machine Learning, Deep Learning techniques has been applied for the decline of crop diseases, weeds and plagues. (Gustavo A. Mesias, Maria Perez, Jose Dorado. et al). Animals raiding damage to crops has grown significantly in recent years. Camera traps are becoming more and more common instrument for wild life monitoring. An autonomous system that can detected the intrusion of wild animals and drive them away without injury. An alarm sound is made after a wild animal discarded to scare it away. (Marichamy P, Karuppaswamy p, Heerab B et.al 2023). Another study found out that Global System for Mobile Communication (GSM) and Short Message Service keep away the wild animals from destroying the crops. (Vikas Bavane .et al – April 2018). The implementation of automation in agriculture enhances agricultural productivity. (Tanha Talaviya,Dhara Shah. et al- 2020). Artificial intelligence (AI) has indeed made significant strides in the field of agriculture, offering innovative solutions to enhance productivity and efficiency. One of the key applications of AI in farming is through the development of systems like health monitoring systems for crops. (Mohd Javaid, et.al – March 2023). The implementation of artificial intelligence-driven technologies in agriculture, such as spray timing optimization, variable rate application maps, and product recommendations, has evidently resulted in significant positive outcomes. Achieving a 30% reduction in fungicide usage on field trial cereal crops and a 72% decrease in tank leftovers is a remarkable accomplishment. It's crucial for research and solutions to align with the United Nations Sustainable Development Goals (SDGs) to address global challenges effectively. Achieving goals like zero hunger and responsible consumption and production are critical for a sustainable and equitable future. (Priyamvada Shankar, et.al- June 2020).

## **Artificial Intelligence and Agriculture Production**

Artificial Intelligence (AI) has been extensively applied in farming recently. To cultivate healthier crops, manage pests, monitor soil and growing conditions, analyze data for farmers, and enhance other management activities of the food supply chain, the agriculture sector is turning to AI technology. AI helps farmers by suggesting the nutrients they should apply to increase the quality of the soil. (Mohd Javaid, Abid Haleem March 2023) Global population is expected to reach more than nine billion by 2050 which will require an increase in agricultural production by 70% in order to fulfil the demand. Only about 10% of this increased production may come from availability of unused lands and rest of 90% should be fulfilled by intensification of current production. In this context, use of latest technological solutions to make farming more efficient, remains one of the greatest necessities. Present strategies to intensify agricultural production require high energy inputs and market demands high quality food. (Dr. Deepak G, et.al -2018).Another study in the area is the current use of robotic and artificial intelligence has fetched an agricultural revolution and protected the crop yield from several aspects like food security problems, weather uncertainty, and population growth. In this paper various artificial intelligence applications in agriculture like irrigation systems, weeding process, crop monitoring process with the embedded systems in robots and sensors. This technology improves the fertility of the soil and optimizes the used water, also

helping in improving productivity, quality, and efficient manpower. (Maithili Anil Chougule, Anil S Mashalkar ,2022) A study discussed that agriculture automation is the main concern and emerging subject for every country. The world population is increasing at a very fast rate and with increase in population the need for food increases briskly A comprehensive review on automation in agriculture using artificial intelligence (Kirtan Jha, et al, 2019). Another paper is an attempt to synthesis the previous studies conducted by previous authors and the major purpose is to explore the current trends of usage and expected benefits of Artificial Intelligence (AI) in agriculture using systematic review. An extensive literature review has been carried by identifying studies conducted on usage and benefits of AI in the farming sector (Jashandeep Singh,2020).

**H1 is accepted as there is direct effect observed between Artificial Intelligence and Agricultural Productivity.**

### **Artificial Intelligence and Crop Protection**

In modern times agricultural activities become more efficient and attractive due to the advent of modern digital technologies like Artificial Intelligence and the Internet of Things (IoT). In the sphere of crop protection Artificial Intelligence plays a crucial role. A study on this field shows that to face the increasing plant protection challenges and to reduce the use of chemical pesticides to control pests in the agriculture innovations and smart solutions are necessary (Vasiliki Balaska and Zoe Adamidou). Lack of knowledge and support of expertise, farmers are over dependent on pesticide dealer's pest identification and pest management. Another study says that ascertain plant pests at an early stage and to reduce over consumption of chemical pesticides advanced technology helps for a certain extent. Artificial intelligence plays a vital role in this field. Another study says that the incorporation of robotic technologies and artificial intelligence helps to monitor the plant pest in correct time. That enables to reduce the use of unnecessary chemical pesticides, this also helps to maintain a sustainable environment. The Expert System for the Management of Malformation Disease of Mango [ESMMDM] is a crop disease expert system, that is mainly intended to help the mango cultivators. (Dilip Kumar Chakrabarthy and Pinaki Chakrabarthy). Technology based machines like robots and drones helps to identify weeds and pests in agriculture fields (Liakos et al-2018). Clipping, Smoothing and enhancement of images with the help of Artificial Intelligence also helps to pest management (Khirade and Patil-2015). Support Vector Machine is highly useful in the classification of leaf diseases and to detect weeds in the field of agriculture (Rajini Jain and Sapna Nigam-June 2021). Another study in the area of crop protection claims that internet is becoming significant assource of information about plant protection and pest management. Decision Support System [DSS]and Expert Systems are generally used in pest control. The Indian Cotton Insect Pest Management [ICOTIPM] is an example for non-specific expert system for crop protection (PP Jmbhulkar and Muralidhar Sadawarti). Information Technology has built up the effectiveness of data collection, analisys and pest management. (Banargee et al.,2019) DSS [Direct Sequence Spread Spectrum]is a technique, that is easy to use and execute the complex duty successfully and efficiently. DSS can be easily and continuously updated and allows the farmers to get in touch with the service providers (Sharma 2021).

**H2 is accepted as there is direct relationship between Artificial Intelligence and crop protection**

### **Crop protection and Agricultural Production**

Crop protection is an important aspect in terms of agriculture production. Crop protection, the term encompasses the idea to maintain healthy and safe food supplies while also contributing to environmental goals. Crop protection involves strategies, tools, and products that protect against pests like diseases,

viruses, weeds, and insects. A study on the use of Artificial Intelligence systems in agricultural sector says that, artificial intelligence makes it possible for farmers to assemble large amount of data from government as well as public websites, analyze all of it and provide farmers with solutions to many ambiguous issues as well as it provides farmers with a smarter way of irrigation which results in higher yield to the farmers. Due to artificial intelligence, farming will be found to be a mix of technological as well as biological skills in the near future which will not only serve as a better outcome in the matter of quality for all the farmers but also minimize their losses and workloads (Panpatte 2018). The emerging technologies have helped the best selection of the crops and even have improved the selection of hybrid seed choices which are best suited for farmer's needs. It has implemented by understanding how the seeds react to various weather conditions, different soil types. By collecting this information, the chances of plant diseases are reduced. Thus farmers are efficiently able to maximize the return on crops (Ferguson et al. 1991) Another study on the contribution of Artificial intelligence systems in the aspect of irrigation ,discusses about the different irrigation methods with the primary motive of developing a system with reduced resource usage and increased efficiency. Devices like fertility meter and PH meter are set up on the field to determine the fertility of the soil by detecting the percentage of the primary ingredients of the soil like potassium, phosphorous, nitrogen. Automatic plant irrigators are planted on the field through wireless technology for drip irrigation. This method ensures the fertility of the soil and ensures the effective use of water resource (Kumar 2014). Another innovative innovation is the implementation of Chatbot. They are the conversational virtual assistants who automate interactions with end users. Artificial intelligence powered chatbots, along with machine learning techniques enable farmers to understand the crop diseases and nutrient deficiencies. This innovation helps farmers to eradicate their doubts regarding cultivation. (Savitha and UmaMaheshwari 2018) The agricultural industry faces various challenges such as lack of effective irrigation systems, weeds, issues with plant monitoring due to crop height and extreme weather conditions. But the performance can be increased with the aid of technology and thus these problems can be solved. It can be improved with different AI driven techniques like remote sensors for soil moisture content detection and automated irrigation with the help of GPS.

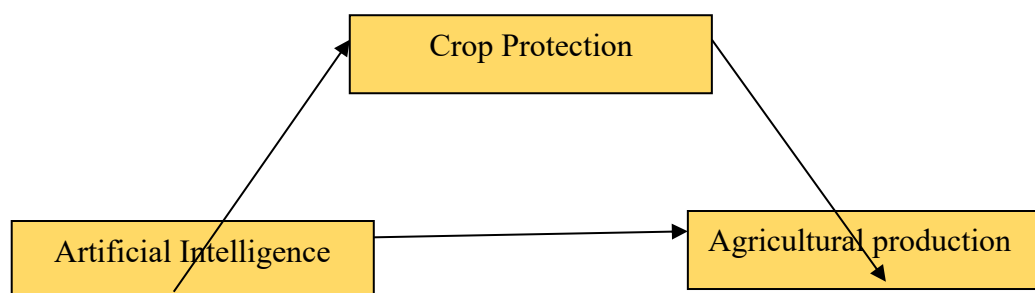
### **H3 is accepted as there is direct effect between Crop Protection and Agricultural production. Artificial Intelligence and Agricultural Productivity through Crop Protection**

In an environment characterized by supply chain tensions frequent weather events, the integration of artificial intelligence (AI) technologies like machine learning, robotics, deep learning, and the Internet of Things (IoT) can have a significant impact on productivity and resource optimization, particularly in agriculture. These AI-driven systems empower agriculture to become more resilient in the face of supply chain tensions and weather events, ultimately contributing to increased food production and food security. (Rosana Cavalcante de Oliveira & Rogerio Diogne de Souza e Silva, 22 June 2023) Integrating robotics and AI into agriculture can indeed be a game-changer in addressing various challenges faced by farmers. AI and IoT sensors can collect and analyze data on soil conditions, weather patterns, and crop health. AI algorithms can be trained to recognize patterns associated with invasive pests. (Vasiliki Balaska et al, 25 July 2023) AI-powered solutions are revolutionizing agriculture in several ways like Optimum Seed Selection, Health Monitoring System, Nutrient Management, Data-Driven Decision Making, Precision Agriculture, Climate Adaptation. AI-powered solutions are playing a crucial role in modernizing agriculture, making it more sustainable, efficient, and resilient to the challenges posed by climate change and resource constraints. (Mohd Javaid et al, March 2023). By leveraging AI technologies, the agricultural sector can become more efficient, sustainable, and resilient.

It not only helps in meeting the demands of a growing global population but also aligns with the United Nations' Sustainable Development Goals (SDGs) by addressing food security, poverty reduction environment conservation. (Gustavo A et al. 2023). Another study involves setting up a camera that records the farm continuously, using a deep learning model to detect when animals enter the premises. To discourage them, a Secure Digital card is used, along with a speak to play suitable sounds. (Virendra Kumar,2014).

**H4 is accepted as crop protection have partial mediation effect on Artificial Intelligence and Agricultural Production.**

#### Conceptual Framework (Figure 1)



#### Pilot study

A pilot study was conducted among farmers in Kerala. One hundred and fifty farmers were selected for this survey. The validity and reliability of the measurement scales were verified and ensured. As per the feedback from the respondents, a few corrections were made to the questionnaire.

#### Population and Sample

The convenient sampling technique (Kothari, 2004) was used for this research, and as mentioned above, the farming enthusiasts in the state of Kerala were selected for collecting data. A total of 1000 questionnaires were circulated through Google forms to agriculturists with an assurance statement of privacy and anonymity of the responses. A total of 720 responses were received (72%); out of this, 217 were rejected due to missing data. After the before said moderate rate of rejection, 503 accurate responses (69.8%) were considered reasonably good because of the study's nature

#### Measurement

##### Artificial Intelligence

Artificial intelligence was measured by using self-reported data. The reliability of the measurement is quite high with an Alfa score of 0.83 and normality tested by using skewness and kurtosis. It is in between – 1.96 and + 1.96. Here 5-Point Likert Scale was used; 1- highly disagree and five highly agree

##### Crop Protection

Crop protection was measured by applying self-reported data. The accuracy is measured by using Alfa score of 0.76 and normality tested by using skewness and kurtosis. It is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

### Agricultural Production

Agricultural Production was measured by applying self-reported data. The reliability is measured by using Alfa score of 0.88. and normality tested by using Skewness and Kurtosis. It is in between – 1.96 and + 1.96. Here 5-point Likert scale was used; 1- highly disagree and 5- highly agree.

### Demographic statistics

The sample included 196 (38%) female and 307 (61%) male agriculturists; 143 (28.4%) were in the age brackets of 20-30, 216 (42%) were in the age group of 30-40, 82(16.3%) were in the age group of 40-50 and the remaining 62 (12.3%) were 50 years of age. The majority of the respondents have an income group of 100000- 300000, 208 (41.3%) majority of the respondents belongs to under graduates 189(37.5%).

**Table 1 Convergent Validity**

Constructs	$\Lambda$	$\lambda^2$	$1-\lambda^2$	CR	AVE	Square root of AVE
AI1	0.68	0.4624	0.5376			
AI2	0.71	0.5041	0.4959			
AI3	0.74	0.5476	0.4524			
AI4	0.73	0.5329	0.4671			
AI5	0.81	0.6561	0.3439			
AI6	0.83	0.6889	0.3111			
AI7	0.69	0.4761	0.5239			
AI8	0.77	0.5929	0.4071	0.9	0.57	0.76
CP1	0.86	0.7396	0.2604			
CP2	0.74	0.5476	0.4524			
CP3	0.79	0.6241	0.3759			
CP4	0.71	0.5041	0.4959			
CP5	0.83	0.6889	0.3111			
CP6	0.88	0.7744	0.2256			
CP7	0.76	0.5776	0.4224	0.92	0.63	0.79
AP1	0.79	0.6241	0.3759			
AP2	0.68	0.4624	0.5376			
AP3	0.64	0.4096	0.5904			
AP4	0.76	0.5776	0.4224			
AP5	0.71	0.5041	0.4959			
AP6	0.83	0.6889	0.3111			
AP7	0.89	0.7921	0.2079			
AP8	0.81	0.6561	0.3439			
AP9	0.74	0.5476	0.4524			
AP10	0.82	0.6724	0.3276	0.93	0.59	0.77

**Table 2 Constructs reliability and validity**

Variables	CA	CR	AVE
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AI	0.83	0.9	0.57
CP	0.76	0.92	0.63
AP	0.88	0.93	0.59

**Table 3 Discriminant Validity (By using AVE)**

	Square root of AVE	AI	CP	AP
AI	0.76	0.76		
CP	0.79	0.61	0.79	
AP	0.77	0.59	0.72	0.77

**Table 4 Model Fit Indices**

Factors	Values	Factors	Values
CMIN	2.13	DF	1
Chi-square	2.21	P Value	0.000
AGFI	.901	GFI	0.907
TLI	.912	CFI	.905
RMSEA	.021	RMR	0.044

### Analysis and results

All these scales were modified and validated specifically for the present research. Before testing the hypothesis, the convergent validity was established through Confirmatory Factor Analysis (CFA). Using the formula recommended by Fornell and Larcker (1981), Average Variance Extracted (AVE) and Composite Reliability (CR) was calculated. In the present study, Average Variance Extracted is more than 0.50, which means the observed variable's errors within limits. For ensuring the overall construct validity, Convergent Validity analysis and Discriminant Validity analysis were executed. As per Convergent Validity, each construct is more than 0.50. Average Variable Extracted for Artificial Intelligence has an average construct of 0.57, Crop Protection has an average construct of 0.63, Agricultural productivity has an average construct of 0.59. Hence, this paper claim that all constructs have the required Convergent Validity and good Discriminant Validity. The square root of the Average Variance Extracted is also higher than the correlation of the constructs. Hence, acceptable standards of Discriminant Validity exist among the constructs.

After ensuring the construct validities, a confirmatory factor analysis with Standardized Root Mean Square Residual (SRMR) and Normal Fit Index (NFI), as proposed by Henseler et al. (2015), is a good approach to validate the conceptual model. An approximately well-fitting model is the one with SRMR < 0.08 and a minimum discrepancy of < 5, but if the model includes any considerable residual value, the model needs modification. Here SRMR is < 0.08; the minimum discrepancy is < 5; root mean square error of approximation (RMSEA) is below 0.05; the Goodness Fit Index (GFI) and Normal Fit Index (NFI) are > 0.9; hence, the constructs have an excellent model fit (Table 4).

### **Direct Effect (Figure 2)**

**Table 5 Direct Effect**

Hypotheses	Path Relation	Original Sample	SE	T Values	P Values	Decisions
H1	AI→ AP	.54	0.015	26.14	0.00	Supported
H2	AI→ CP	.62	0.061	28.32	0.00	Supported
H3	CP→ AP	.48	0.083	22.19	0.00	Supported

**Hypothesis testing**

The mediation analysis involved mean-centering all constructs, following the approach outlined by Aiken and West (1991). Three Structural Equation Model (SEM) were developed to assess, how Crop Protection mediates the relationship between Artificial Intelligence and Agricultural Production using the frame work established by Baron and Kenny (1986).

Accordingly, the direct effect observed between AI and AP ( $\beta=0.54$ ;  $p < 0.001$ ). hence H1 is accepted; The direct effect between AI and CP ( $\beta=0.62$ ;  $p < 0.001$ ). hence H2 is accepted. The direct effect between Crop Protection and Agricultural Production ( $\beta=0.48$ ;  $p < 0.001$ ). Therefore, H3 is accepted.

**Table 6 Mediation Effect**

Hypotheses	Associations	Direct Effect	Indirect Effect	Total Effect	VAF	Mediation
H4	AI→ AP	.54	0.297	0.837	35.4%	Partial mediation

**Mediation Analysis**

The mediation analysis, the goal is to establish the theoretical indirect relationship between constructs, wherein the mediating variable modifies the direct path. Calculating the mediating effect enables the identification of the total relationship between the constructs through the mediating variables. The significance of indirect effect is assessed using the Variance Accounted for Statistics (VAF) which quantify the impact of the mediating variable on the dependent variable or the proportion of the dependent variable’s variance explained by the indirect effect. The direct effect between Artificial Intelligence and Agricultural Production is 0.54, indirect effect 0.297 and total effect 0.837 and here the VAF is 35.4%. So here Crop protection have a partial mediation effect on Artificial intelligence and Agricultural production. It is found that VAF value is in between 20% -80% that shows partial mediation and hence H4 is accepted

**Implications**

Artificial intelligence helps farmers to predict crop diseases, pest outbreaks, and weather pattern, allowing farmers to take proactive measures to protect their crops. Based on farmers perception it will benefit them to increase agricultural productivity. It can predict weather and potential impact of conditions such as wind rainfall or impending drought. In short, Artificial intelligence not only assists farmers in automating their agricultural production, but also changes to precision, cultivation for improved crop output and quality while using less resources

## **Discussion**

Artificial intelligence-based farming leads to higher productivity and improved yield, resulting in increased profits for agricultural farmers. It can detect and eliminate weeds, as well as recommend efficient pest control methods, thereby enhancing productivity. The purpose of this research study is to identify the perception of farmers towards artificial intelligence in agricultural productivity through crop protection as a mediating variable. The result of this study indicates that there is direct effect between artificial intelligence and agricultural production. It helped the farmers to identify areas that need irrigation, fertilizers, pesticide treatment or increasing yield. This study found out that the crop protection has partial mediation effect on artificial intelligence and agricultural production.

## **Conclusion**

The study reveals that there is a positive relationship between crop protection and agriculture production through the introduction of artificial intelligence. The questionnaire was developed to collect data from 503 agriculturists in Kerala. According to the analysis there is significant relationship between crop protection and agriculture production through the implementation of AI driven technologies in the field of farming. The respondent farmers perceived artificial insemination is a good program. So, in future, to tackle farming challenges, farmers tend to opt the most modern challenges to increase agriculture production.

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## A re-engagement model to overcome the psychological distress of students

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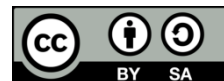
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### ABSTRACT

COVID-19 lockdowns and lack of social interaction increased academic disengagement among students in India. This study aims to identify the student engagement pitfalls and the prevalent psychological distress in higher education institutions (HEIs) in India prior to the pandemic and during the same. An exploratory research design is adopted by executing a purposive sampling technique. Researchers collected data from undergraduate students of the top five universities, verified 600 consistent responses, and tested the hypothesis using relevant research tools. Results display that psychological distress (PD) is inversely correlated to student engagement (SE) and negatively impacts it. Researchers introduced a novel re-engagement model called "CAIS", which is the combination of four variables, creativity, physical activity (PA), internship, service learning (SL), and tested their relationship with PD and SE. Each variable under CAIS shows an inverse correlation with PD and positively impacts SE. This study suggests to include "CAIS" in the curriculum to improve the productivity of students and reduce their stress levels. This investigation is the first of its kind to explore the connection between CAIS, SE, and PD in Indian HEIs. The results contribute to the stakeholders in education to re-engage the students in an innovative pattern during post-pandemic times.

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## 1. INTRODUCTION

COVID-19 has catapulted mayhem across the globe causing economic and social disruption. The historic lockdowns have robbed the animated campus spaces of millions of students globally [1]. Not to jeopardize academic activities, the countries rapidly shifted to e-learning mode [2], and India also followed suit. Swift technological advancements have made e-learning much more accessible and fascinating with various lectures, slides, and audio-video presentations [3], [4]. The Government of India (GoI) tried e-learning as a large-scale social experiment. It launched tools with online depositories, e-learning materials, educational TV, and radio programs to reach learners [5]. However, the virtual learning system has exacerbated the social and economic disparities globally as a repercussion of the pandemic [6].

India stands far from justification for providing seamless online education owing to the digital divide [4]. Higher education institutions (HEIs) in India use eclectic digital platforms such as Google Meet, Microsoft Teams, Zoom, but erratic power and sporadic internet connections make learning problematic for students [4]–[7]. Excessive apprehensions torment the student community allied to their academics, career,

and overall survival post-pandemic. In further sections, this paper discusses the rampant distress among the students, structural flaws in HEIs, and how the social and education system in India aggravates the overall agony of the student fraternity.

Scholars have done a plethora of studies on psychological distress among students and prevalent pitfalls in Indian HEIs. Anxiety, depression, fear, anger, psychosomatic complaints, and suicidal propensity is evident among Indian students [8], [9]. India is a collectivistic society that emphasizes interdependence and social cohesion. Indian family plays an enormous role in nurturing children, influencing their education, career, and overall survival [10]. Hence, in the Indian context, higher education students are expected to score high grades and obtain a promising profession to support their families [8]. Students face constant pressure from parents, teachers, and society and are often compared to their peers and siblings [1]. In India, exams are the ultimate yardstick to measure students and are judged based on their grades. A significant segment of children in India is traumatized due to fear of failure, performance anxiety, negative appraisals, and social stigma [8]–[11].

Literature establishes that the stress level, evident even in pre-pandemic epochs, further soared high due to COVID-19. Disrupted routine, lack of systematic and structured pattern of a campus environment, absence of curricular and extracurricular activities, monotonous lifestyle, and lack of social interactions are a few of the myriad reasons for the mental stress of students [1]–[9]. The challenges faced by students during this pandemic are, emotional challenges (academic stress, exam anxiety, lack of motivation); financial challenges (job loss for parents, loan burden); career challenges (dearth of internships and jobs, stiff competition, tumult in country's economy); social challenges (isolation, lack of interaction, physical distancing measures); physical and mental health challenges (contracting virus and health issues, fear of spreading to family, suffering, and death of loved ones). It is opined that these hassles would thwack their mental well-being and may also continue to haunt them for many years in their future life [8].

Indian higher education system has received wide criticism for its structural flaws. Validity in equity, infrastructure, quality, research, and innovation [12] are a few of the multitudinous glitches faced by HEIs in India. University Grants Commission (UGC) has documented the issues related to expansion, inclusiveness, and quality while highlighting the importance of investment in higher education [13]. Students' learning is affected, and a lack of interest is generated due to the stagnating models of teaching and practice [14]. HEIs lack veritable student engagement activities due to their inconsistent delivery and approach. SE is an understudied and ignored concept in the Indian milieu [15]. According to a survey on teachers, it is noted that “only 55% of Indian students are actively engaged in learning”, 61% at the school level, which drops down to 50% in higher education [16]. Even prior to the pandemic, studies suggested that “experiential learning” and “multidisciplinary approach” are indispensable in Indian HEIs [12]–[17].

COVID-19 has not only multiplied the prior stressors but widened the relationship between student-teacher and created a vacuum in the minds of the students. The post-pandemic goals are to bridge the gulf between teacher and student, re-engage the students productively, and instill enthusiasm and self-confidence in them. Hence, a re-engagement model that strategically aligns with the ideology of HEIs and matches the expectations of students' communities is imperative to reduce their burnout. Subsequently recognizing this need, our paper proposes a novel re-engagement model suitable for post-pandemic times to augment student well-being in Indian HEIs. This paper further exhibits the evidence from the literature that student engagement is the hallmark of productivity and lack of engagement triggers anxiety and concern.

## 2. COMPREHENSIVE THEORETICAL BASIS

Studies establish the relationship between student engagement and psychological distress. Student engagement (SE) is an extensively recognized and researched concept in pedagogics and has an imperative influence on higher education. There are three SE factors “emotional, behavioral, and cognitive” that directly influence their accomplishments and success [18], [19]. Emotional engagement emphasizes the students' positive and negative responses toward academics, teachers, and peers [20]. Cognitive engagement encompasses the students' effort to learn, develop strategies, and comprehend complex ideas [20]. Behavioral engagement accentuates the students' participation in curricular, extracurricular, or social activities, which is critical for positive accomplishments and for eliminating the chances of dropouts [18]–[20]. Researchers added a fourth factor, agentic engagement, indicating the students' interest in enquiring, clarifying, informing, and active participation in the learning process [21]. The unification of the four components accentuates overall student engagement.

The holistic outcomes of SE include academic accomplishments, transformative studying, and personal and social development [18]–[22]. Student engagement also boosts a sense of belonging, pride, inclusiveness, and psychological well-being of students by reducing academic burnout [20], [22]–[24]. The study done among university students in Spain proposes that engagement is a “positive, fulfilling, work-

related state of mind” and is an antipode to burnout [25]. Research at a university in Cyprus unveiled an inverse correlation between burnout and student engagement [26]. An investigation done among university students in Turkey affirms that SE predicts academic achievement positively, while burnout is predicted negatively [27]. Disengagement triggers anxiety, depression, delinquency, substance abuse, and disaffection among students [28]–[30]. Studies also prove that if students have high distress, their engagement will get negatively impacted [23]–[31]. COVID-19 has triggered severe stress due to the isolation during lockdowns, affecting their engagement level. Hence, this paper further discusses a novel re-engagement model called “CAIS,” suitable for the post-pandemic period.

CAIS, a re-engagement model, is a combination of four student engagement concepts, creativity, physical activity (PA), internship, and service learning (SL). CAIS as a single concept is novel and lacks prior studies. It is partially adapted from an internationally renowned student engagement concept called creativity, activity, service. Creativity, activity, service (CAS) is an internationally acclaimed experiential learning program espoused by the prestigious International Baccalaureate (IB) headquartered in Geneva, Switzerland [32], [33]. The IB organization has designed CAS for high school students to burgeon their leadership skills and make them more “civic-minded” [34].

CAS is a compulsory element of the IB diploma program, which boosts the students between the age group 16-19 to prosper “physically, intellectually, emotionally, and ethically” [35]. The “creativity” element of CAS includes performing art forms, making art designs, and organizing or communicating at events. The “activity” component emphasizes the importance of sports, gym, trekking, and other exercises that can complement academics. The “service” concept highlights unpaid volunteering, charity, or other community services [35]. Research about this program has been scant to date. However, available studies affirm that CAS transforms students into “global citizens” [32], [33]. In this paper, CAS has been modified to CAIS by including another variable, “internship,” which could be a suitable re-engagement model for HEIs in India. Studies related to each variable’s benefit under CAIS are discussed in detail hereafter.

Creativity in education has received immense accord among the higher education community, and there is a profusion of literature citing the importance of nurturing creativity among students in HEIs [36]–[39]. A positive relationship between teachers’ leadership and students’ creativity was established through a study in HEIs [40]. Researchers, through their examination at a university in Bosnia, cited the importance of “additional effort” in amplifying creativity in HEIs [36]. Another study conducted among HEIs in Moscow recommends the implementation of creativity in institutions on three levels: personal, procedural, and environmental [37]. Creativity in higher education gives students a sense of freedom to work in “new and interesting” styles [41]. It also optimizes students’ satisfaction, resilience, self-esteem, and well-being [42], [43]. Studies have established that creativity diminishes stress and augments student engagement [44], [45]. The literature underscores the need to incorporate creativity in higher education.

PA is described as “any bodily movement produced by skeletal muscles that result in energy expenditure” [46]. It includes play, work, sports, exercise, or other household chores [47]. Involving in any PA enhances an individual’s “physical, psychological and emotional health” [47], [48]. It also reduces the risk of non-communicable health issues and positively impacts the quality of life [48]. PA is a well-researched topic, and studies stipulate its relevance in higher education [47]. Investigations from various universities denote the positive connotation between PA and psychological well-being as it holistically improves the quality of life [47]–[49]. It also reduces stress and enhances student engagement [50], [51]. PA improves physical fitness and catalyzes academic success [52]. Physical fitness among university students is on an average scale, and it is crucial to spread awareness regarding their involvement in physical activities [53]. From the studies, it can be understood that the inclusion of PA in HEIs is indispensable.

Internship is conceptualized in numerous ways by authors over a period, and enunciating with a precise definition will be arduous and erroneous. Literature expatiates that internship is career-oriented learning that imparts skills and proficiency to bridge the gulf between the classroom and the real world [54]–[56]. The concept has gained enormous attention among the higher education fraternity as it could be a win-win situation for “students, employers, and schools” [54]. Internships offer “practical experience,” and students gain a comprehensive cognizance of applying theoretical knowledge to handle practical issues [57]. Researchers observed that internships equip students for employment and provide knowledge on customer service, time management, team spirit, and meeting deadlines [58]. Internship increases job prospects and provides a positive and comfortable work environment, as per a study conducted in an agricultural college in the Philippines [56]. Studies exhibit that internship programs impact not only the “professional and personal growth” of students [59] but reduce their stress levels [60]. It is also proved that experience gained through an internship program improves competency [55] and enhances student engagement [61]. Prior studies highlight the importance of including an internship in the curriculum of HEIs.

Service learning is a combination of “teaching and learning strategy”, which integrates community service and education [62]. Welfare activities envisioned to assist and support specific groups of people in society have gained prominence in education. Higher education must aim to develop “civic leaders and

productive citizens” [63]. SL in higher education is a novel method to enhance learning through various community services resulting in “personal development and civic engagement” and also fosters social and emotional skills [64], [65]. A study conducted at a German University highlights the importance of a “didactic approach” to service learning among students that will “promote social responsibility and citizenship skills” [66]. SL is impactful, profoundly engaging, and transformative didactic practice and academic alignment [67]. SL instills numerous qualities such as a sense of citizenship, responsibility, cooperation, empathy, tolerance, social awareness, and cultural knowledge that provides a practical learning experience [62]–[67]. Studies conducted among students establish that SL augments student engagement and caters to their mental health requirements [65], [68], [69]. It is also proved that SL provides a “unique experience,” as per the research done in Central and Eastern European universities [63]. These studies indicate the necessity of the inclusion of service learning in education.

While literature evidence ensures the benefits of the variables (creativity, physical activity, internship, and service learning), this study intends to amalgamate as “CAIS” and examine the possibility of introducing the same in HEIs as a novel re-engagement model. Therefore, this paper first studies the relationship between the variables psychological distress (PD) and SE, then further examines the relationship of each variable under CAIS with PD and SE. It also investigates how variables under CAIS impact PD and SE. The hypothesis was developed based on the literature: i) PD has a negative impact on SE; ii) Creativity, PA, internship, and SL have a significant positive correlation with SE; iii) Creativity, PA, internship, and SL have a significant inverse correlation with PD; iv) Creativity, PA, internship, and SL have a significant positive impact on SE; and v) Creativity, PA, internship, and SL have a significant negative impact on PD.

### 3. RESEARCH METHOD

To identify the correlation and impact of CAIS with SE and PD, correlation analysis and structural equation modelling (SEM) was conducted. A confirmatory factor analysis (CFA) was conducted to identify the validity and reliability of the measurement model and the relations between the observed items and the latent variables. The structural model tests the significance of the path coefficients and the standard errors.

A pilot study was conducted with 70 students from five universities. After making a few wording corrections for better understanding, questionnaires (N=1,350) were distributed to the undergraduate students of the top five universities as per NAAC rating from five regions (north, south, east, west, center) in India. A total of 711 (55.11%) responses were received using purposive sampling methods, and after eliminating the inconsistent ones, 600 responses were taken for further analysis. IBM AMOS and IBM SPSS statistics 23 were used to analyze the data. The data was collected through e-mail by administering a 54-item scale, and Cronbach’s alpha reliability (0.754) was satisfactory.

Instruments for the study are sourced from pre-validated scales and are modified to suit this research. Hence, validity and reliability are further tested and ensured. A self-administered questionnaire consisting of six variables was used for the data collection. SE was measured by a 15-item instrument from university student engagement inventory (USEI) [20], Cronbach’s alpha 0.722; PD was measured using a 16-item scale from MBI-SSi [70], and COVID-19 Stress Scales (CSS) [71], Cronbach’s alpha 0.765; Creativity was measured using a 6-item scale from creativity styles questionnaire [72], Cronbach’s alpha 0.732; PA was measured using a 6-item scale from international physical activity questionnaire [46], Cronbach’s alpha 0.753. Internship was measured by a 6-item scale from internship related learning outcome scale [73], Cronbach’s alpha 0.806. SL was measured by a 5-item scale from the community service attitudes scale [64], Cronbach’s alpha 0.746. A five-point Likert scale (1=strongly disagree to 5=strongly agree) is used to assess each item in the SE, creativity, PA, internship, and SL; and reversely coded for variable PD. The convergent validity and discriminant validity of the instrument is also tested.

### 4. RESULTS AND DISCUSSION

The descriptive statistics and reliability tests are presented in Table 1. Reliability is the extent to which measures are free from random error and yield a consistent result. The Cronbach’s alpha reliabilities for each scale obtained a satisfactory result ranging from 0.722 to 0.806. The value for Cronbach’s alpha is higher than the proposed value of 0.70, which indicates that the items are reliable to proceed with further analysis. CFA has been administered to identify the unidimensionality of the measurement model.

The loading for each factor shows a significant contribution to the constructs as shown in Table 2. The factor loadings of each dimension show a value higher than 0.7, which assures the content validity of the variable. The critical ratio statistics of standardized factor loading of the constructs in every factor discloses the convergent validity. All factors’ reliability value shows a higher value than the suggested frontier.



Table 1. Descriptive statistics

	No. of items	Mean	Std. deviation	Alpha
SE	15	4.0630	.70752	.722
PD	16	1.8334	.59416	.765
Creativity	6	4.0997	.74137	.732
PA	6	4.0945	.67588	.753
Internship	6	4.1074	.67644	.806
SL	5	4.1078	.65273	.746

Table 2. Results of CFA

Construct	Item code	Factor estimate	Error variance	Critical ratio	P	R <sup>2</sup>
SE	EE1	0.869	0.043	19.70	***	0.72
	EE2	0.780	0.040	21.91	***	0.62
	EE3	0.740	0.042	25.88	***	0.65
	EE4	0.887	0.042	20.92	***	0.75
	EE5	0.912	0.044	24.46	***	0.81
	EE6	0.623	0.042	24.49	***	0.57
	EE7	0.953	0.043	21.74	***	0.88
	EE8	0.846	0.041	25.65	***	0.60
	EE9	0.797	0.104	16.50	***	0.70
	EE10	0.848	0.080	16.12	***	0.70
	EE11	0.867	0.042	23.16	***	0.73
	EE12	0.843	0.035	24.76	***	0.70
	EE13	0.885	0.041	20.61	***	0.77
	EE14	0.747	0.038	28.10	***	0.55
	EE15	0.839	0.038	25.63	***	0.67
PD	DI1	0.804	0.044	24.09	***	0.62
	DI2	0.894	0.043	24.12	***	0.78
	DI3	0.839	0.039	19.64	***	0.72
	DI4	0.750	0.036	21.85	***	0.61
	DI5	0.711	0.038	25.82	***	0.65
	DI6	0.857	0.038	20.86	***	0.75
	DI7	0.883	0.040	24.40	***	0.80
	DI8	0.794	0.038	24.43	***	0.56
	DI9	0.924	0.039	21.68	***	0.87
	DI10	0.817	0.037	25.59	***	0.60
	DI11	0.768	0.100	16.44	***	0.69
	DI12	0.818	0.076	16.06	***	0.69
	DI13	0.837	0.038	23.10	***	0.72
	DI14	0.813	0.031	24.70	***	0.69
	DI15	0.855	0.037	20.55	***	0.76
	DI16	0.717	0.034	28.04	***	0.54
Creativity	C1	0.809	0.034	25.57	***	0.66
	C2	0.774	0.040	24.03	***	0.61
	C3	0.865	0.039	24.06	***	0.77
	C4	0.645	0.047	24.42	***	0.56
	C5	0.976	0.048	21.67	***	0.87
	C6	0.868	0.046	25.58	***	0.60
PA	PA1	0.819	0.109	16.43	***	0.69
	PA2	0.870	0.085	16.05	***	0.69
	PA3	0.889	0.047	23.09	***	0.72
	PA4	0.865	0.040	24.69	***	0.69
	PA5	0.907	0.046	20.54	***	0.76
	PA6	0.769	0.043	28.03	***	0.57
Internship	I1	0.861	0.043	25.56	***	0.66
	I2	0.826	0.049	24.02	***	0.62
	I3	0.917	0.048	24.05	***	0.78
	I4	0.862	0.044	19.56	***	0.71
	I5	0.772	0.041	21.77	***	0.61
	I6	0.733	0.043	25.74	***	0.64
SL	SL1	0.879	0.043	20.78	***	0.74
	SL2	0.905	0.045	24.32	***	0.80
	SL3	0.616	0.043	24.35	***	0.56
	SL4	0.946	0.044	21.60	***	0.87
	SL5	0.839	0.042	25.51	***	0.59

\*\*\*Significant at 1% level

According to Table 3, the average variance extracted and composite reliability value is higher than the minimum frontier suggested. It provides a clear idea about the construct validity. The Cronbach alpha value measures the reliability, which shows that all values are higher than the recommended minimum frontier. The analysis helps to understand the reliability and validity, data consistency, and adequacy.

Table 4 explains the measurement model’s goodness of fit indices and is clearly within the threshold value. The goodness of fit index (GFI), adjusted GFI (AGFI), normed fit index (NFI), incremental fit index (IFI), and CFI values are above desired limits, such as .931, .912, .951, .962, and .962. The root mean square error of approximation (RMSEA) and root mean square residual (RMR) values have not exceeded the threshold value of 0.05, and the values are 0.033 and 0.045, respectively. The Chi-square value has no significance, and the normed Chi-square value is 2.21 which is within the desired limit of 3. The analysis suggests that the data fit for the proposed conceptual model is good and can be taken for further study.

Table 3. AVE and squared correlation

Constructs	No. of items	Squared correlation	AVE
SE	15	0.0472-0.1241	0.601
PD	16	0.0551-0.0994	0.652
Creativity	6	0.0145-0.0674	0.656
PA	6	0.0592-0.0987	0.644
Internship	6	0.0264-0.0791	0.636
SL	5	0.00311-0.0598	0.678

Table 4. Fitness indices of CFA

	Particulars	Result
Chi-square	Chi-square value	0.131
	Normed Chi-square	2.21
	GFI	.931
Fit indices	AGFI	.912
	NFI	.951
	IFI	.962
	CFI	.962
Alternative indices	RMSEA	.033
	RMR	.045

**4.1. Correlation**

A correlation analysis is done to identify the relationship between creativity, internship, PA, and SL with SE and PD. As presented in Table 5, it is clear that there is a significant positive relationship between creativity, internship, PA, and SL with SE and a significant negative relationship between creativity, internship, PA, and SL with PD. SL shows a higher correlation with SE, followed by PA. SL and PA show a higher negative correlation with PD. Hence, hypotheses 2 and 3 are accepted.

Table 5. Correlations

		PD	SE	PA	Internship	Creativity	SL
PD	Pearson Correlation	1	-.947**	-.860**	-.847**	-.848**	-.882**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	600	600	600	600	600	600
SE	Pearson Correlation	-.947**	1	.820**	.800**	.799**	.825**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	600	600	600	600	600	600
PA	Pearson Correlation	-.860**	.820**	1	.872**	.845**	.939**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	600	600	600	600	600	600
Internship	Pearson Correlation	-.847**	.800**	.872**	1	.865**	.945**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	600	600	600	600	600	600
Creativity	Pearson Correlation	-.848**	.799**	.845**	.865**	1	.940**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	600	600	600	600	600	600
SL	Pearson Correlation	-.882**	.825**	.939**	.945**	.940**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	600	600	600	600	600	600

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

**4.2. Structural equation model**

SEM has been used to know the impact of creativity, internship, PA, and SL on SE and PD. The SEM path values as displayed in Figure 1 show that creativity, internship, PA, and SL have a significant positive impact on SE. PA (0.61) shows a higher influence on SE, followed by SL, creativity, and internship (0.55, 0.44, and 0.39), respectively. The GFI obtained is 0.918 as against the recommended value of above



0.90, Comparative CFI and Tucker Lewis index (TLI) are 0.931 and 0.902, respectively, as against the recommended level of above 0.90. RMSEA is 0.075 and is just above the recommended limit of 0.06. Hence, the model shows an overall acceptable fit as presented in Table 6.

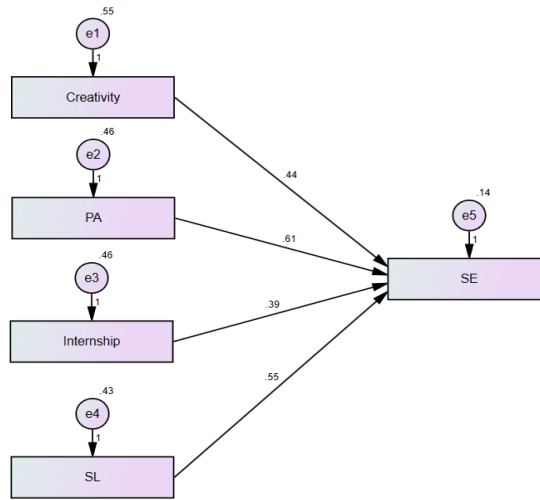


Figure 1. Path analysis of CAIS with SE

Table 6. Fit indices of CAIS with SE

Chi square	Df	Ratio	Standard estimates				
			P-Value	GFI	CFI	TLI	RMSEA
9.390	6	1.56	0.000	0.918	0.931	0.902	0.075

The SEM path values as depicted in Figure 2 show that creativity, internship, PA, and SL have a significant negative impact on PD. PA (-0.37) shows a higher inverse influence on SE, followed by creativity, SL, and internship (-0.28, -0.24 and -0.08), respectively. The GFI obtained is 0.935; RMSEA is 0.067; CFI and TLI are 0.959 and 0.917 as presented in Table 7. Hence, hypotheses 4 and 5 are accepted.

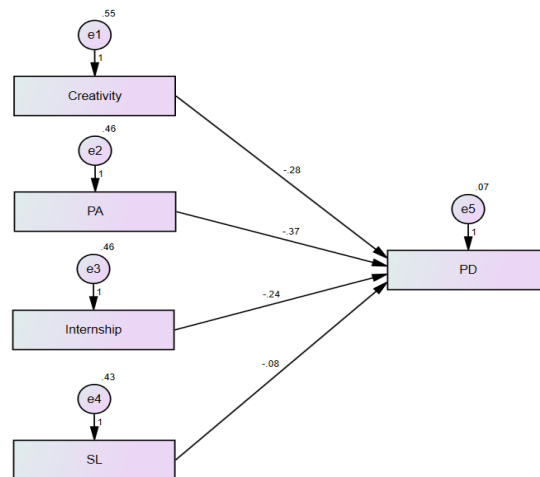


Figure 2. Path analysis of CAIS with PD

Table 7. Fit indices of CAIS with PD

Chi square	Df	Ratio	Standard estimates				
			P-Value	GFI	CFI	TLI	RMSEA
11.460	6	1.91	0.000	0.935	0.959	0.917	0.067

Figure 3 shows that the PD has a significant negative impact on SE (-0.54). Fitness indices exhibit a good fit for the model. Thus, hypothesis 1 is accepted. The findings contribute to the earlier studies, which established that psychological distress has a high negative impact on student engagement [23], [26]–[30]. The results of this paper also support the earlier findings, which established a positive correlation of variables creativity, physical activity, internship, and service-learning with student engagement and an inverse correlation with psychological distress. Congruent to the previous studies, the finding shows a positive impact of variables creativity, physical activity, internship, and service-learning on student engagement and a negative impact on psychological distress [44], [45], [60], [61], [68], [69].

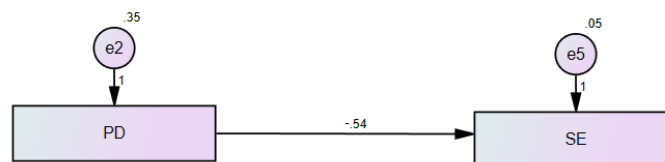


Figure 3. Path analysis of PD with SE

This paper takes cognizance of the issues faced by students during COVID-19 and highlights the importance of re-engaging them in post-pandemic times to reduce psychological distress. Even though student engagement activities like counseling, yoga, arts, sports, dance were already in place in Indian HEIs, the unprecedented and prolonged COVID-19 pandemic affected student engagement adversely [74]. At this juncture, a novel re-engagement model is crucial to keep the students motivated and allow them to perform without distraction and deviation. It should re-ignite the overall energy lost during the pandemic period. According to the literature, International Baccalaureate has incorporated CAS into its curriculum to accomplish students' physical, intellectual, emotional, and ethical development [35]. Along with CAS, we propose to include another variable “internship” and modify it as “CAIS” suitable for Indian HEIs. An internship will unite theoretical and practical learning [54], [55].

Results from this study affirm the need for a practical learning approach, and CAIS as a re-engagement model will diminish academic burnout and augment psychological well-being. It is imperative to restructure the pedagogies for the students to have enriching educational experiences. The experiential learning idea is mooted with the confidence that if implemented systematically in HEIs, it would enhance the students' knowledge and upheaves their employability. “CAIS,” as a re-engagement model, will bring vibrancy to pedagogies by igniting a creative mind, carving a healthy physique, offering real-world experience, and instilling civic-mindedness. The new National Education Policy by GoI emphasizes the need for shifting the focus from black-board teaching, rote learning, and examination to creative teaching and learning, critical and problem-solving outlook, and research-oriented innovative pedagogics [75]. Indian HEIs show no compulsion for student involvement in extracurricular activities, and internship is made mandatory only for a few academic programs [76]–[78]. While talented students participate in art, sport, or community activities, a significant portion of the student fraternity stays away from non-academic activities since there is no compulsion. Absence of engagement distracts and diverts their mind, leading to substance abuse, unethical social media activities, crimes, or other self-destructive actions [79]. Hence, this paper suggests that CAIS be made part of the academic curriculum as a mandatory program.

Students may be advised to attend stipulated hours of creative sessions like dance, music, drawing, painting, craft making, computer designing, clay modeling, candle making, or any such activities of their choice where the creative ideas ignite [80], [81]. Similarly, a few hours of physical activity should be obligatory where students involved in any activity of their choice, yoga, sports like football, badminton, swimming, or a few sessions in the gymnasium where their overall physical fitness is improved [82], [83]. HEIs should make a few hours of internship compulsory so that students will have to work for a minimum period in any small or big industry, which would convert their theoretical knowledge to real-world practice [84]. Finally, there should be a mechanism in HEIs to make service-learning mandatory where students can participate in community services and voluntary charity programs that will create civic sense and make them productive citizens [85], [86]. In the progress card or mark sheet, along with the marks for their theoretical subjects, marks for CAIS should also be mentioned, and the total of these two factors should be their aggregate marks or percentage while declaring their grades. This can be done in a specific ratio based on the policies and discretion of concerned HEIs or universities. This study purely focuses on understanding the relationship and impact of SE, PD, and the individual variables under CAIS. Since this is the first time such a unique model is proposed, further studies on the same topic after the implementation is essential.

The research limits its span to five universities, one from each region, and finds it difficult to generalize in a pan-India context. Future studies should include more universities from all the regions in India. This study limited its focus to undergraduate students, while there is a scope to include post-graduate students in the future. Another limitation of this study is that, since the concept “CAIS” is being studied for the first time, literature suggesting the benefit of the same as a single variable is unavailable for reference. Hence, this study has considered each component under CAIS as a separate variable for examination. Single research is insufficient to scrutinize all fasciae of this multifaceted construct CAIS. Further study is essential to reinforce our understanding of this subject. The results contribute to the earlier findings by confirming their relationship and impact on each other. In continuation, a further study after combining all the variables under “CAIS” as a single moderator between SE and PD is imperative to gain better perspectives on this subject. This study holds practical implications for all stakeholders in education to adopt a multidimensional approach in HEIs. Education in emergencies like COVID-19 requires a cyclical approach comprising three components, preparing, coping, and recovery [87].

## 5. CONCLUSION

COVID-19 created chaos in education by disengaging students worldwide. This research identifies the problems related to student engagement and how lack of engagement creates distress among students of Indian HEIs. Disengagement and distress were prevalent prior to COVID-19, which aggravated during the historic lockdowns. This paper also identifies the benefits and defects of online education. The efforts taken by stakeholders and individuals for online education should not be abandoned in the post-pandemic era. An avalanche of technological tools is available to make virtual learning more affordable and accessible. At the same time, students need not be deprived of the opportunity to socialize, share and showcase their talents, learn through experiments, and have fun moments of classroom education. Therefore, this paper proposes a novel re-engagement model called “CAIS”, an amalgamation of four popular student engagement concepts - creativity, physical activity, internship, and service learning. With the introduction of CAIS, we envisage holistic development where students can exhibit their creative talents, contribute to sports, gain through internships, and serve the community. The marks for formal theoretical studies and CAIS can be segregated on a specific ratio and be shown in the mark sheets and progress cards after ensuring a hundred percent participation. In culmination, this study proposes a restructuring of pedagogics with an amalgamation of online cum offline academics and the insertion of CAIS as a systematic engagement plan to amplify student well-being and curtail academic stress in Indian HEIs.

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# **Transmisia and psychological distress with the mediation of unemployment and moderation of social acceptance - Working towards an ethical workspace and an egalitarian society, a study of Indian transgender citizens**

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## **ABSTRACT**

The transgender population is one of the most vulnerable groups facing constant violence and ostracization. Discrimination in the most fundamental aspects, such as education, employment, housing, and healthcare, has a devastating effect on their mental well-being. This study explores the impact of transmisia (TM) on the psychological distress (PD) of the transgender population and how unemployment (UE) mediates this effect. Additionally, this paper examines the moderation effect of social acceptance (SA) between TM and PD. The study was conducted in four Indian states – Uttar Pradesh, Maharashtra, Andhra Pradesh, and Tamil Nādu, where the most transgender people live. The sample of this study included 318 transgender individuals from the states mentioned above and was selected by adopting a purposive sampling method. The results exhibit that TM has a significant positive impact on the PD of transgender citizens, and UE mediates this effect. However, the aforesaid impact is moderated by SA, highlighting the pressing need for interventions in amplifying the social inclusion and acceptability of transgender individuals. This study holds practical implications for all stakeholders, including employers and policymakers. The effective implementation of best human resource practices and anti-discriminatory policies further the prospects of building an ethical workspace and equitable society.

**Keywords:** Transmisia, Psychological Distress, Unemployment, Social Acceptance

## 1. Introduction

India is renowned for its rich history, unique culture, and profoundly ingrained values and beliefs, leading to a wide range of social norms and religious practices. After gaining independence, the country has progressed significantly and strives to be a more equitable society. Nevertheless, the patriarchal family structure in India continues to view transgender people as abnormal and a source of disgrace to their family reputation. Transgender is an umbrella term encompassing a heterogeneous spectrum of identities, expressions, appearances, and behaviors that contradict or transcend conventional gender norms (Biswas & Soora 2021). In India, there are several socio-cultural transgender groups known as kothis, hijras, kinars, jogtas, shiv-shaktis, aradhis and more, known by different names in different regions (Chatterjee 2018; Anusha & Hunnur 2019). However, Hijra is a popular term used for transgender people in the South-Asian context, and their roots go back to ancient times (Bal 2020). The term "Hijra" has been found in some ancient Indian manuscripts, where it is accurately translated as "Eunuch" in English (Anusha & Hunnur 2019). However, this translation can be confusing since it refers to members of the transgender community, which includes a considerably more comprehensive spectrum of gender identities and expressions.

As per the country's census, India is home to 488,000 transgender citizens (Census 2011), and until recent times, this community was not legally recognized. In 2014, Supreme Court, in its historic ruling in the case of National Legal Services Authority (NALSA) versus Union of India, granted recognition for various transgender rights and considered them as "third gender" (Anusha & Hunnur 2019; Biswas & Soora 2021). However, for transgender individuals, societal acceptance in India is often a dualistic experience. In some parts of India, they are revered; and often sought out to bestow blessings upon new-born babies and newlyweds but are more commonly subjected to discrimination and prejudice. The Transgender Persons (Protection of Rights) Act 2019 (Bal 2020) guarantees the right to "self-perceived" gender identity, prohibits gender-based discrimination, and promotes equality. However, due to inefficient enforcement of the Act and lack of stringent legal measures, discrimination against transgender individuals remains a perennial issue, particularly in housing, healthcare, education, and employment. As per the census, total literacy stands at 46% for the transgender population of 4.8 lakhs, and most educational institutions are unequipped to safeguard their equity rights (Biswas & Soora 2021). The employment status of the transgender population is very alarming, with a mere 6% being employed, and most of them are engaged in menial jobs (National Human Rights Commission 2017). Additionally, the income level of the transgender population is abysmally low, which deprives them of a decent standard of living. Despite gaining rights through constant legal battles, the level of social acceptance and inclusivity of transgender people continues to be dubious; at the same time, according to Williams Institute (2021), India is in the 51st position in the social acceptance index.

Workplace discrimination is a universal problem for transgender individuals, and there exists a dilemma in disclosing their gender identity and expression due to the fear of further prejudice (Mizock et al. 2018). Unethical hiring practices, hostile work environments, social ostracization, and transprejudice contribute to poverty and subsequent mental trauma among the transgender population (Stelzner 2022). Although there has been noticeable progress in recognizing transgender issues, significant obstacles to employment and social acceptance persist, thus highlighting the pressing need for attention and action. This background heightens the relevance of this study which tries to understand the concept of transmisia and consequent psychological distress among transgender individuals. While evaluating the persistent



unemployment issues among the transgender population, this paper tries to study the mediating effect of the same and the moderating mechanism of social acceptance on the impact of transmisia on psychological distress.

## **2. Theoretical background and hypothesis**

### ***2.1. Transmisia (TM) and Psychological Distress (PD)***

Transmisia is frequently recognized as “Transphobia”, despite a subtle distinction in their connotation. Both terms originate from the Greek language, where "phobia" denotes "fear" and "misia" signifies "hatred" (Simmons University 2023; Wiktionary 2022; Wordsense Dictionary 2023). Consequently, while both terminologies are commonly used interchangeably, they ultimately reveal a deep-rooted bigotry against nonbinary or transgender individuals. Transmisia can be defined as aversion, hatred, or mistrust directed toward individuals who identify as transgender or whose gender expression does not align with traditional gender norms (Troop 2017; Loyola Marymount University 2023; Planned Parenthood 2023). The prevalence of transmisia or transphobia in society significantly contributes to the marginalization and discrimination of transgender individuals. Transprejudice-based violence perceptibly persists across various cultural contexts and countries, regardless of their economic status, whether high, middle, or low-income nations (Stotzer 2009; Wang et al. 2019; Noor 2022). Cross-sectional research of trans women in thirteen provinces of Cambodia indicated that at least one-third of participants had difficulties finding employment (31.5%), experienced sexual assault (39.5%), or were compelled to have sex (51.6%) because of their gender identification (Yi et al. 2020). A Pakistan-based study established that transgender women encountered various forms of verbal and psychological abuse predominantly perpetrated by men, including family members, classmates, intimate partners, employers, and co-workers (Noor 2022). Numerous studies steered in different countries reveal alarming information on hate crimes, including rape, murder, forced sex work, human trafficking, and other forms of violence targeted towards transgender, nonbinary or gender non-conforming individuals as a manifestation of cissexism or transphobia (Rafael et al. 2021; Barua & Khan 2023; Müller et al. 2021; Wirtz et al. 2020; Ganju & Saggurti 2017; Rosenberg et al. 2020; Jackson et al. 2023). India has reported several incidents of stigmatization and violence against its transgender citizens; a study by Priya and Kumar (2020) establishes this with few anecdotal evidence. Uma, a transwoman who was sitting next to a metro station in Delhi, the national capital, was dragged by two policemen into a room who brutally raped her and extorted money. Another transwoman Jhumroo narrated the horrifying experience of her friend Neelam who had to use the restroom urgently, was “chased away from a public washroom, and had to resort to urinating in a remote open area”. Repeated episodes of violence, as mentioned above, and stigmatization can trigger severe trauma among the transgender population, leading to irreparable consequences.

Transgender and nonbinary individuals endure substantial psychological health challenges due to the social apathy, violence, and ostracization they experience. A study by Nuttbrock et al. (2014) in the United States found that transwomen subjected to physical and mental abuse were more prone to report severe depression and anxiety. Based on the data collected from the United States Transgender Survey 2015, Becerra et al. (2021) conducted a study among Asian American transgender individuals that established transmisic-based violence cause “serious psychological distress” (SPD). A Canadian study demonstrated that transgender youth were more susceptible to high stress, self-injury, episodes of major depression, suicide ideation, and attempted suicide (Veale et al. 2017). According to Testa et al. (2015), “internalized transphobia (ITP)” is a kind of minority-oriented stress that ascends when transgender individuals internalize negative perceptions towards themselves because of constant exposure to societal

discrimination and harassment. Numerous studies on transgender samples have established that ITP positively correlates with adverse mental health (Tebbe & Moradi 2016; Brennan et al. 2017; Jackman, Dolezal & Bockting 2018). The persistent negative emotions triggered by social apathy, ostracization, abuse, and rejection lead to substance abuse, self-harming behaviors, and suicidal ideation among transgender people. According to several studies, the repeated episodes of anxiety attacks caused by ITP can eventually culminate in self-annihilation (Veale et al. 2017; Becerra et al. 2021; Rafael et al. 2021). A Williams Institute (2019) report, based on the United States Transgender Survey 2015, displays that 51% of transgender individuals who experience repeated violence and harassment attempted suicide. Grounded on the rich literature, we hypothesize

H1: TM significantly impacts PD

## **2.2. Unemployment (UE), Transmisia (TM) and Psychological Distress (PD)**

The malicious human behaviour continues, including the unhealthy cycle of mistreatment, humiliation, aggression, bigotry, and hatred, particularly towards transgender people, which has an immense negative influence on their social, psychological, physical, and economic life (Veale et al. 2017; Wang et al. 2019; Becerra et al. 2021). Transprejudice seems to have a devastating consequence on the employability of transgender persons, and studies across the world suggest that the unemployment rate among them is substantially high. A national survey in the US established a high unemployment rate among transgender people, which is twice the national unemployment rate (United Nations Programme on HIV and AIDS 2014), also validated by McKinsey (2021). The obstacles for the transgender community while trying to secure employment are complex, and studies suggest that transphobia is linked to hiring discrimination as a major cause (James et al. 2015; Leppel 2021; Smith et al. 2018; Shannon 2022). Mizock et al. (2018) explicate that unfair recruiting practices, bigotry in the workplace, and poor working conditions cause low employment rates and lower wages for transgender people. A field experiment in twelve labor markets in Sweden by Granberg, Andersson and Ahmed (2020) reveal that employment discrimination among transgender people is higher than among cisgender individuals. Unemployment based upon transprejudice and discrimination is established through studies in various Western, European, and South-Asian countries, for instance, the US (Grant et al. 2011; Wolf & Dew 2012; Shannon 2022), Australia (Cheung et al. 2018), EU (Fric 2019; Drydakis 2021), Pakistan (Waqar, Waqar & Jamal 2022), Bangladesh (Abedin & Sarker 2022), and India (Chatterjee 2018). According to National Human Rights Commission data, 96% of transgender people in India have severe difficulties finding a job, with many being driven into sex work or begging since they have no other options (National Human Rights Commission 2017). Mishra and Negi (2021) and Kumar (2022) elucidate that major barriers to transgender career opportunities include unfair hiring policies and the absence of legal protections for the transgender community in India.

According to Van Borm and Baert (2018), hiring bias and mistreatment aligns with the model of “taste-based discrimination theory” (Becker 1957), where employers' or colleagues' reluctance to work with transgender persons may be associated with transmisia. This theory specifies that employers who harbor an aversion to transgender people may pay less for work of equal productivity to make up for the psychological harm caused by coming into contact with members of this group or opt not to hire them in the organization (Drydakis 2021). Discrimination can also be based upon the model “statistical discrimination theory” (Arrow 1973), which may be a stigma associated with the health of transgender individuals (Drydakis 2021) since they are at higher risk of physical, mental, and transitioning related illness

(McFadden 2020). Van Borm and Baert (2018) argues that this type of discrimination could be inaccurate and result from false perception regarding particular groups of transgender people. Numerous studies have explored the types of workplace inequity confronted by transgender people. For instance, Darwish and Naidoo (2021) examined South African transgender individuals who reported constant criticism and harassment within the work domain. Gender identity and expression have caused hostile workplace outcomes like not being hired but fired, being underpaid, or being denied promotion (Grant et al. 2011). Apart from explicit victimization, they also face microaggressions like sarcastic gaze, purposeful misuse of pronouns, and other subtle insensitive remarks (Galupo & Resnick 2016). Most workplaces adhere to a gender binary system and lack gender-neutral bathrooms; therefore, bathroom usage is a significant concern for transgender, nonbinary or gender non-conforming individuals (Davidson 2016).

A survey by National Centre for Transgender Equality reported that 59 percent of gender non-conforming or nonbinary individuals dread using public restrooms since they are afraid and ashamed of being tormented, mocked, or confronted (James et al. 2015). Paradoxically not being employed and being employed seems to be problematic for transgender individuals. Unemployment leads to financial instability, poverty, and subsequent hunger (Matsuzaka & Koch 2019). The obverse side of the coin is that while in employment, most endure severe prejudice, victimization, and bigotry, further exacerbating mental agony and depression. There are plenty of studies that exemplify the positive association between poverty and homelessness of transgender individuals with their anxiety and psychological distress (Wolf & Dew 2012; Mizock & Mueser 2014; Cheung et al. 2018; Chatterjee 2018; Matsuzaka & Koch 2019; Pirzada et al. 2022). A national community survey in Australia has reported that unemployed Australian transgender individuals exhibited high depression (73%), self-harming tendencies (63%), and suicide attempts (43%) (Bretherton et al. 2021). Chaudhary and Agrawal (2022) expound that in India, transgender citizens face employment discrimination and denial of bank loans, credits, and other financial aid for self-employment, further intensifying their vulnerability and irreparable psychological trauma. Grounded, on the shreds of evidence from the robust literature, it can culminate that transprejudice-induced discrimination, unfair hiring practices, unemployment, and workplace mistreatment have a severe influence on the mental well-being of transgender people; hence, we hypothesize:

H2: TM positively impacts UE

H3: UE positively impacts PD

H4: UE mediates the impact of TM on PD

### ***2.3. Social Acceptance (SA), Transmisia (TM), Psychological Distress (PD)***

Social acceptance signifies the magnitude to which individuals feel valued, respected, and included by fellow members of society. Despite their contributions to the social order and entitlement to equal opportunities, transgender individuals continue to experience severe disparities in accessing primary resources like housing, education, employment, and healthcare (Divan et al. 2016; Davidson & Halsall 2016; Tantirattanakulchai & Hounnaklang 2020). Social acceptance encompasses an eclectic range of aspects which includes autonomy to gender identity and expression, safe housing, financial stability, access to gender-affirming healthcare, and even more, assimilation in the broader political, cultural, and social fabric of the society (Kumar 2014; Tantirattanakulchai & Hounnaklang 2020; Xie et al. 2021). Studies have underscored the importance of transgender individuals' education, which can be crucial for acquiring knowledge, skills, and critical thinking abilities for their personal, professional, and

social development (Tabassum & Jamil 2014; Rajkumar 2016; Kamali et al. 2021). Social inclusivity in schools and universities helps reduce cissexism, and transgender students can acquire the necessary education without being bullied for their gender identity (Greytak, Kosciw & Boesen 2013; Weekley 2017; Omercajic & Martino 2020). Furthermore, a study by Gorrotxategi et al. (2020) in a university explicated that promoting inclusivity and visibility of transgender students' diminished transphobia considerably among cisgender students. A study by National Human Rights Commission (2022) in India highlights that establishing a transgender-friendly milieu in education institutions promotes equality and ensures a platform for all children to learn and foster foundational values of diversity and social acceptance. Studies also establish that organizational support and social inclusion can amplify employability and reduce workplace challenges of transgender individuals (Ozturk & Tatli 2016; Mizock et al. 2018; Mishra & Negi 2021). Social acceptance can be obtained through interventions and decisive involvement, and this is validated by Poornima (2022), who steered a study among transgender individuals in Kerala, India. This study expounds on how media reports and social activism that portrayed transgender individuals in a positive light have heightened their visibility and increased awareness of the issues they faced. These constant efforts have contributed to a supportive atmosphere for transgender individuals in the region.

An intense literature scrutiny provides insight into various studies conducted concerning social support and its effect on the psychological health of transgender individuals across the globe. For instance, Matsuzaka and Koch (2019) examined the “intersection of transphobia and misogyny” and its relationship with the victimization of transgender women in New York city. This study underscored the role of social support in alleviating the stigma produced by transmisogyny. Xie et al. (2021) surveyed 1309 transgender citizens from China and observed 56.4% suicidal ideation and 16.1% suicide attempts. The findings indicate that “family support and social acceptance” can reduce self-destructive tendencies among the Chinese transgender population. Social support not only diminishes anxiety and depression but is a catalyst to enhance the sense of belonging and overall mental well-being, suggests (Tantirattanakulchai & Hounnaklang 2020) based on their study among Bangkok transgender citizens. An investigation on African American trans-women proves that "body satisfaction," which can be attained by gender confirmation therapies, will boost their mental well-being and enhance their acceptance in society (Klemmer, Arayasirikul & Raymond 2021). A similar study in the UK has echoed this finding by stating that acceptance and support from society help transgender individuals to build resilience, especially during transitioning (Ellis, Bailey & McNeil 2016). Based on their observation (Budge, Adelson & Howard 2013) accentuated the importance of “interventions that reduce avoidant coping strategies” and “increasing social support” to augment the mental health of transgender individuals. Barry University School of Social Work, USA, explored the relationship of social connectedness and transphobic stigma on the self-esteem of transgender adults. The study overtly advocates "micro and macro interventions" to amplify social connectedness (Austin & Goodman 2017). Numerous research findings demonstrate a positive connexion between social acceptance and support with the mental well-being of the transgender population (Mizock & Mueser 2014; Trujillo et al. 2017; Sun et al. 2022; Hajek et al. 2023). This paper relies on the robust literature mentioned above, and it can be concluded that social acceptability and support diminish transphobia-induced persecution and associated mental trauma among transgender individuals. Hence, we hypothesize:

H5: SA moderates the impact of TM on UE

H6: SA moderates the impact of UE on PD

H7: SA moderates the impact of TM on PD

### 3. Methodology

#### 3.1. Data and population

A pilot study was steered in four states of India - Uttar Pradesh, Maharashtra, Andhra Pradesh, and Tamil Nādu since most transgender people live in these states as per the Census (2011). One hundred transgender respondents participated in the study. The questionnaire was modified slightly based on the input received from the respondents after confirming the validity and reliability of the measurement instrument.

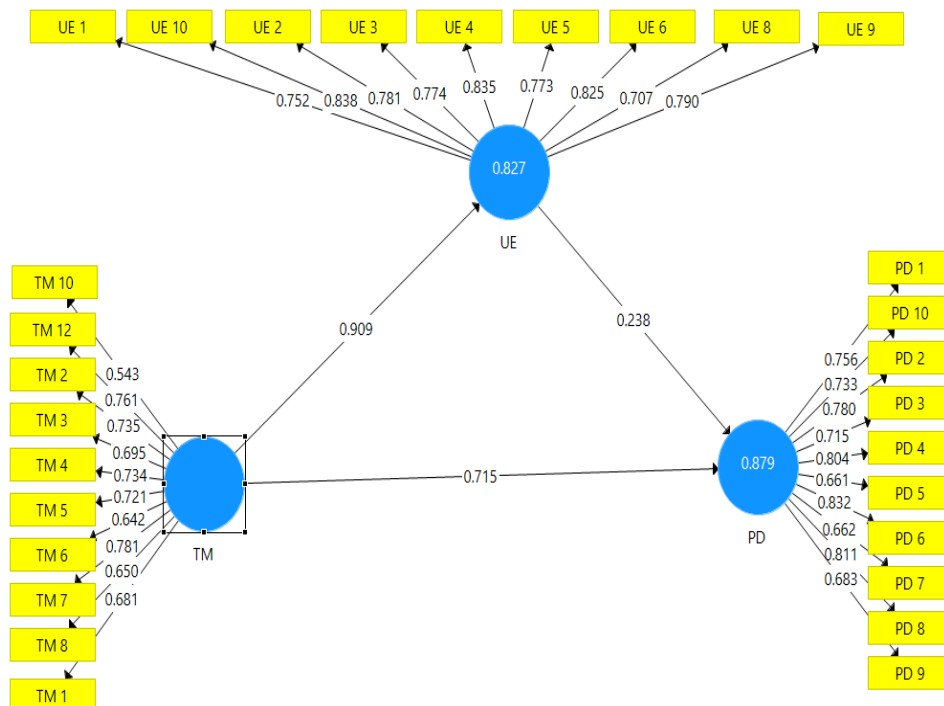
As Kothari (2004) suggested, this study used the purposive sampling method and distributed 600 questionnaires to the respondents using google forms. Since the respondents were concerned about their privacy during the pilot study, the questionnaire included a privacy statement. A total of 410 responses (68.3%) were received. However, due to inadequate information, 92 responses were discarded, and the balance of 318 accurate responses (77.6%) were considered good enough due to the nature of the study. Most of the respondents, 98(30.8%) were from Uttar Pradesh, followed by 84 (26.4%) from Andhra Pradesh, 78 (24.5%) from Maharashtra, and 58 (18.2%) from Tamil Nadu respectively.

#### 3.2. Measurement

TM was measured with a combined 12 item scale from Chakrapani et al. (2017) and Rendina et al. (2020), cronbach's alpha .912. UE was measured with a combined 10 item scale from Total Jobs (2016) and Bradford et al. (2013), cronabch alpha 0.933. PD was measured with a 10 item scale from Jones et al. (2019), cronbach alpha 0.911. SA was measured with a combined 9 item scale from Zimet et al. (1988) and Bozani et al. (2020), cronbach alpha .869. The cronbach value of all 4 constructs are greater than .850 signifies that the constructs are reliable. The scale reliability was analyzed using SPSS.

### 4. Analysis and Results

Figure 1: Mediating Model TM, UE, PD



Initially, in order to test the model without the influence of moderator variable, the above given SEM model was framed and run using Smart PLS. The result values obtained from the PLS model signify the acceptance of hypothesis (H1 to H4) which are discussed below. The values of the above model (Figure 1) are presented in Table 1; the outer loadings, internal construct reliability, (rho\_a), multi-collinearity (VIF), and path coefficient R<sup>2</sup> value are used to interpret the model.

**Table1: Model Results**

	Estimate	p- Value	Cronbach Reliability	rho_a	Composite Reliability	AVE	R <sup>2</sup> (t-value, p-Value)
<b>Transmisia</b>							
TM1	0.681	***	0.881	0.886	0.904	0.486	
TM2	0.735	***					
TM3	0.695	***					
TM4	0.734	***					
TM5	0.721	***					
TM6	0.642	***					
TM7	0.781	***					
TM8	0.650	***					
TM10	0.543	***					
TM12	0.761	***					
<b>Unemployment</b>							
UE1	0.752	***	0.923	0.928	0.936	0.620	0.826
UE2	0.781	***					
UE3	0.774	***					
UE4	0.835	***					
UE5	0.773	***					
UE6	0.825	***					
UE8	0.707	***					
UE9	0.790	***					
UE10	0.838	***					
<b>Psychological Distress</b>							
PD1	0.756	***	0.911	0.916	0.926	0.557	0.878
PD2	0.780	***					
PD3	0.715	***					
PD4	0.804	***					
PD5	0.661	***					
PD6	0.832	***					
PD7	0.662	***					
PD8	0.811	***					
PD9	0.683	***					
PD10	0.733	***					

In order to determine the convergent validity of the constructs i.e to establish that the items of each construct converge to the same construct, the AVE values were considered. As it is suggested that AVE should be > .50 ( the outer loading of the construct should be >.708) which implies it explains atleast 50% of the construct (Hair et al. 2016). Though certain outer loading values were less than .708 in TM and PD constructs, with respect to PD it was considered as

its AVE was  $>.50$  which is acceptable. In the case of TM though AVE is less than  $.50$  but its construct reliability is greater than  $.8$ , hence, it is also considered for the study. The AVE of each constructs taken for model 1 is PD (0.557), UE (0.620) and TM (0.486) (Table 1).

To assess multicollinearity of items, the VIF values of each item was considered. It was noted that, VIF of TM9, TM11 and UE7 were greater than 5 and the VIF of all other items ranged between 1.833 to 4.689, hence excluding the above three items all other item with VIF was less than 5 was considered.

As PLS-SEM is a non-parametric method to analyze the statistical significance of the indicators bootstrapping was done. With reference to model (Figure 1) it could be noted that there exists a significant and positive relation between TM and PD ( $\beta$ -value=0.715, t-value=9.865, p-value=0.000), (Table 2). The relation between TM and UE was also found to be positively significant ( $\beta$ -value=0.909, t-value=75.730, p-value=0.000) (Table 2). It was also noted that there exists a significant positive relation between UE and PD ( $\beta$ -value=0.238, t-value=3.163, p-value=0.000) (Table 2). As the significance value for all the three relations were  $<0.05$ , null hypothesis was not accepted and alternate hypothesis i.e., H1, H2 & H3 were accepted (Table 2)

**Table 2: Hypothesis Results (H1, H2, H3)**

Hypothesis	Estimate	t-Value	p-Value	Accepted/ Rejected
H1	0.715	9.865	0.000	Accepted
H2	0.909	75.730	0.000	Accepted
H3	0.238	3.163	0.000	Accepted

In order to analyze the mediating effect of UE between TM and PD, the indirect effect was taken into consideration. It was found that there exists a significant positive relation of the mediator value, hence, H4 was accepted (Table 3).

**Table 3: Indirect Effect**

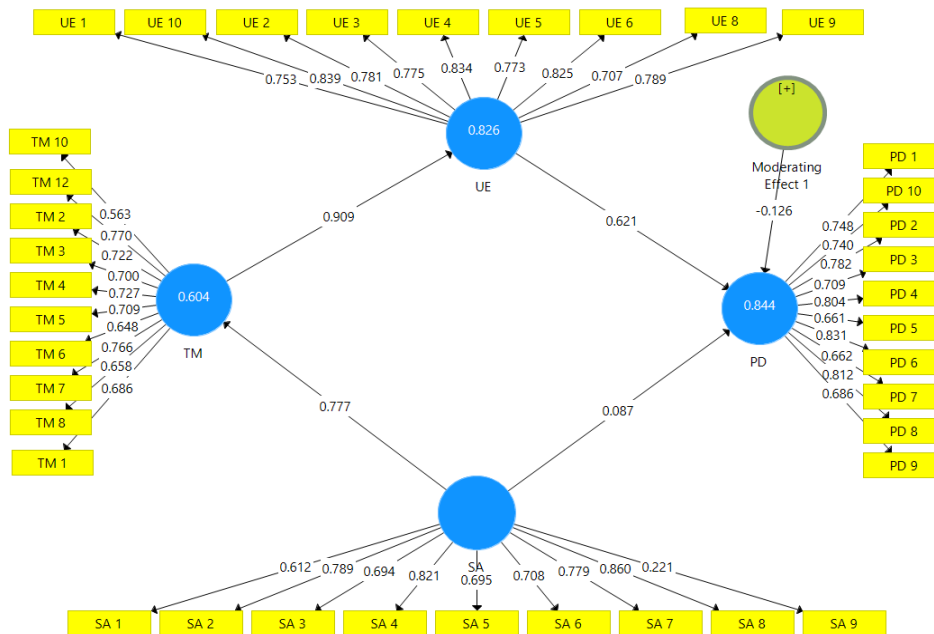
	Estimate	t-Value	p-Value
TM→UE→PD	0.217	3.164	0.002

Hair et al. (2019) specifies that  $R^2$  values as, substantial ( $.75$ ), moderate ( $.50$ ) and weak ( $.25$ ) because they stand as the predictive power of the endogenous variable.  $R^2$  values in model 1, implies that 82.6% change in UE is explained by TM, 87.8% change in PD is explained by TM and UE (Table 1). Since the  $R^2$  values of both the endogenous variable were greater than  $.75$  it indicates it is substantial.

### Moderator analysis Results

It is evident from various studies that SA stands as a deciding factor for UE and PD which is the consequence of TM (DeWalt & Bushman 2011; Ozturk & Tatli 2016; Mizock et al. 2018; Mishra & Negi 2021). Thus, to examine the moderating effect of SA between UE and PD, and TM and UE the following model was executed (Figure 2). As suggested by Aiken and West (1991) all the constructs were mean-centered to examine the moderating impact of SA. The results of model 2 is presented in Table 4 and discussed below.

**Figure 2 Moderating Model SA, TM, UE, PD**



In the above model, the internal reliability construct values of TM (0.881- 0.884- 0.904), UE (0.923-0.928-0.936), PD (0.911-0.915-0.926) SA (0.864-0.903-0.905) were  $< .95$  which implies that the values are good (Drolet & Morrison 2001). To analyze the convergent validity of the constructs, AVE value was considered, (TM-0.486, PD-0.557, SA-0.503 and UE-0.620). It was found that except TM for other three constructs AVE were  $> .5$ , which is acceptable. With respect to TM though its AVE is  $< .5$ , its reliability is  $> .88$ , so it was considered for the study. In the above model (Figure 2) SA was set as the moderator variable, between UE and PD. To determine the significance of the relation between the constructs bootstrap was executed. It was found that there exists a significant positive relation on inclusion of SA as moderator of TM on UE ( $\beta$ -value=.706, t-value=18.258, p-value=0.000). Hence H5 was accepted. With respect to moderating impact of SA between UE and PD, it was noted that there exists a slight significant negative impact of SA ( $\beta$ -value= -.126, t-value=3.078, p-value=0.001) in direct effect (Table 4), but the indirect effect showed a significant positive relation, SA $\rightarrow$ TM $\rightarrow$ UE $\rightarrow$ PD ( $\beta$ -value=.438, t-value=6.954, p-value=0.000). Hence H6 and H7 were accepted. The above results suggest that the moderator variable supports the impact of dependent variable and independent variable.

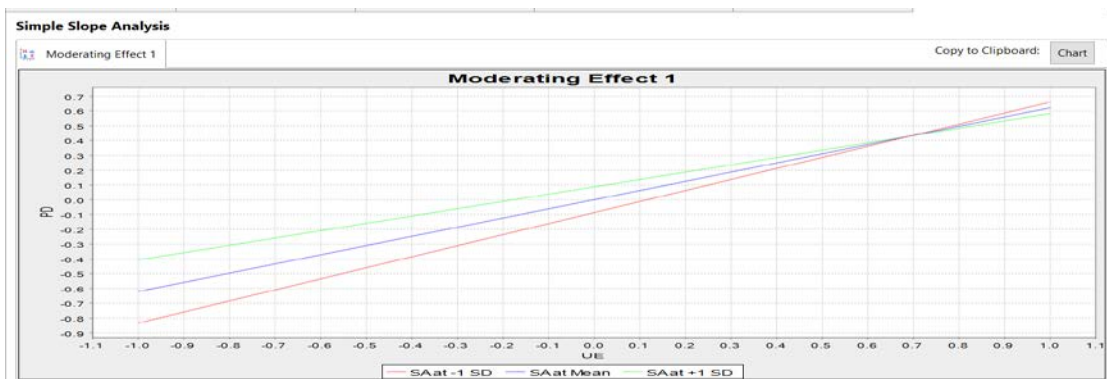
**Table 4: Moderating Effect Results (Direct Effect, Indirect Effect):**

	Path Co-efficient	t-value ( O/STDEV )	p-value
Direct Effect			
Moderating Effect1 $\rightarrow$ PD	-0.126	3.708	0.001
Indirect Effect			
SA $\rightarrow$ TM $\rightarrow$ UE	0.706	18.258	0.000
SA $\rightarrow$ TM $\rightarrow$ UE $\rightarrow$ PD	0.438	6.954	0.000



To further strengthen the discussion on moderating effect, simple slope analysis result is presented below (Figure 3).

**Figure 3: Slope Analysis**



From the above figure it implies that, as UE increases, PD also increases significantly. In particular, it could be observed that as there is a unit increase in these two constructs, similar rate of decrease is witnessed in SA and after particular level it gets narrowed down and intersects. After that point of intersection, it could be noted that SA reverses. Thus, the above graph (Figure 3) signifies that SA moderates the impact of UE on PD.

## 5. Discussion and implications

The study first explored the impact of transmissia on the psychological distress of transgender individuals, with the results displaying a significant effect. This finding aligns with previous studies that indicate aversion and phobia toward transgender individuals elevate their psychological distress as a negative consequence of overt stigmatization (Nuttbrock et al. 2014; Jackman, Dolezal & Bockting 2018; Jackson et al. 2023). Furthermore, this study identified that unemployment mediates the impact of TM on PD which echoes the literature that transphobic-based hiring discrimination, unemployment, and workplace inequity amplify the stress level of transgender individuals (Mizock et al. 2018; Van Borm & Baert 2018; Granberg, Andersson & Ahmed 2020). Additionally, this paper explored the moderating mechanism of social acceptance in the relationship between transmissia, unemployment, and psychological distress. While empirical evidence on the associations among these constructs in a single study is scant, these results are in congruence with various prior studies that examined the relationships of these variables in different combinations. For instance, previous studies have identified the impact of transphobia on anxiety and stress (Mizock & Mueser 2014; Matsuzaka & Koch 2019; Klemmer, Arayasirikul & Raymond 2021), the positive association between transphobia and unemployment (Mizock et al. 2018; McFadden 2020), and the effect of social acceptance/support on mental well-being (Pflum et al. 2015; Tantirattanakulchai & Hounnaklang 2020; Xie et al. 2021). While linking these studies it is evident that transgender individuals who experience higher levels of SA are less likely to experience UE and PD as an aftermath of TM. There are two aspects this study tries to discuss, the social psychology angle to understand the variable “Social Acceptance” and also view the concept of “hiring discrimination and unemployment” through the business ethics lens.

A study by DeWall and Bushman (2011), throws light on the psychology behind the statement, “Social acceptance is sweet, and rejection is bitter”. According to the study, the “need to belong” means an individual’s desire for social contacts and relationships. Furthermore, “offering socially rejected people a small taste of acceptance, even from one stranger, is enough to reduce their aggression” (DeWall & Bushman 2011). Emerged from social psychology, the

“need to belong,” a craving for interpersonal relationships (Allen et al. 2022), reflects the “social needs” facet from Abraham Maslow’s “Hierarchy of Needs” theory as explained by Aruma and Hanachor (2017). “Hierarchy of Needs” (Maslow 1943) postulates that “social needs” are one of the fundamental elements of human motivation and prerequisite for well-being (Buijs et al. 2021), and this study supports that assertion by highlighting the critical importance of social acceptance for transgender individuals. The moderation effect of SA demonstrates that employability increases for socially accepted transgender individuals. This is consistent with the literature, as explained by DeWalt and Bushman (2011) “examples of acceptance include being chosen for a desirable job”. While reflecting Maslow’s “Hierarchy of Needs”, one must first acknowledge the foundational tiers of the pyramid: "Physiological Needs" and "Safety Needs" (Aruma & Hanachor 2017). Transgender individuals must have the financial stability to meet these most basic needs, including food, water, clothing, and shelter, which is tier one of the “Hierarchy of Needs”. This highlights the importance of employment. Additionally, the “safety or security needs”, as per Maslow’s model, indicates the essence of having a conducive environment where the transgender population does not have to fear abuse, violence, or microaggressions. The below section of this study tries to understand how the act of discrimination in employment, fits into the unethical genre.

Discrimination is a form of unfair treatment of one group over another, and in the workplace, it denotes a deviation from an organization’s ethical code that specifies principles of equity and justice (Stelzner 2022). Employment discrimination towards transgender individuals due to irrational transphobia is an infringement of the human right of equal treatment; hence it can be considered unethical. Dietz and Kleinlogel (2018) argue that employment discrimination is unethical since it violates five moral principles, “utilitarianism, distributive justice, righteousness of actions, virtuousness, and ethics of care”. The underlying philosophy of utilitarianism depends on the principle that the morality of our deeds should be evaluated based on the consequences, particularly whether they lead to someone’s happiness or prevent giving them pain (Bowden 2009). Distributive justice highlights equity theory and can be explained as how an employee perceives the “fairness of the outcome received” (Pan et al. 2018). Righteousness of actions can be explained from the organization milieu as “employers do not have the right to discriminate, and discrimination infringes on employees’ rights of fair treatment” (Dietz & Kleinlogel 2018). Virtuousness in an organization has three essential elements, "human impact, moral goodness, and social betterment" (Cameron & Dutton 2003). Ethics of care focuses more on “caring and empathy” and underscores the importance of “responsibility, social inter-connectedness, and collaboration” (Groot et al. 2019). Transgender employment discrimination, when scrutinized based on all the aforementioned ethical approaches, can be judged as unethical (Dietz & Kleinlogel 2018).

Establishing an ethical work culture that prioritizes equity and a social culture that values diversity and inclusivity is not only a moral imperative but a practical one that benefits both individuals and organizations. This study holds practical implications for policymakers, employers, healthcare providers, educators, social activists, and the general public to make a substantial effort to improve the social acceptance of transgender individuals. Stringent policies and legal measures that proscribe discrimination are indispensable to affirm equity in the education, employment, and healthcare of transgender individuals. Transgender quotas and reservations are vital in the field of education and employment to reduce discrimination. As far as India is concerned, government and private organizations should work in tandem to create appropriate job opportunities for transgender individuals based on their education and skills, ensuring greater economic stability and independence. Social aid and grants for self-employment will allow them to embrace their entrepreneurial skills. Increasing access to

gender-affirming surgeries, hormone therapies, and transitioning requirements is essential, which can help transgender individuals feel more comfortable and confident in their bodies. Another key concern of transgender individuals that stakeholders need to address is to make gender-neutral bathrooms widely available in public spaces and organizations. This would ensure they can access essential facilities without fearing harassment. In conclusion, society must cultivate inclusivity and establish a fair and just community that prioritizes equity and respects the rights and welfare of transgender individuals.

## **6. Limitations and future research**

This study has a valuable contribution to the literature on the intersection of transprejudice, unemployment, and mental health and the moderation effect of social acceptability of transgender individuals. However, there are no studies without limitations, and the ones with this study are being acknowledged.

One significant limitation is that the study included participants who were willing and able to participate and who met specific eligibility criteria from four Indian states. This sample may not represent the larger transgender population from India. Additionally, since this study is done in the Indian milieu, the findings may not entirely apply to the transgender population of other cultures or countries. The sample size was relatively small, which may limit the study's statistical influence by making it hard to perceive significant effects.

Another limitation is the study's cross-sectional design, where the data were obtained at a particular time. Longitudinal studies provide a better understanding of the connection of variables over different times. Furthermore, the study did not include demographic variables such as age, education, and income that may influence the relationships between the examined variables. Future studies could address these limitations and examine the impact of the above-discussed variables concerning transmen, transwomen, and gender non-conforming people separately to enhance our understanding of the subject. This study limited its scope to unemployment as a mediator, where future studies can include variables like “body shaming” or “microaggressions” to understand their effect on psychological distress. Similarly, along with social acceptance, future studies can include “anti-discrimination policies” as another moderator between transmissia and psychological distress to get a better perspective on the topic.

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**Data Availability Statement** –Data can be made available from the corresponding author, [MR], upon reasonable request, and after considering the ethical aspects.

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