

## Hybrid Workplace Strategic Model for Management Education in India: An Exploratory Study

<sup>1</sup>Mehraj Ud Din Shah

### Abstract

*The hybrid Workplace System was profoundly infused into the higher education system in India during the COVID-19 pandemic and has laudably contributed to the teaching-learning process. Nevertheless, it has malfunctioned in many academic areas, including management education. This is because, how to infuse a hybrid workplace system more effectively in the education system is somewhat unclear and unexplored in past research. Therefore, it is in this background that the present study aims to unfold why the hybrid workplace model has malfunctioned in management education and what strategies are required so that the hybrid workplace system is effectively extended to management education in India. The study is primarily exploratory in nature and used the Technological Acceptance Model (TAM) and the theory of planned behavior (TPB) to find the adaptability of a hybrid workplace system in higher education. The study observed that due to the lack of strategical approach and backend resources, the hybrid workplace system has malfunctioned in management education and accordingly puts forth some relevant strategies based on the hybrid workplace model developed by the author for successful implementation of the hybrid workplace system in India. The strategies are specifically institution-centric and demand collective involvement and commitment from all the stakeholders of management education, besides the proactive role of institutional leadership backed with adequate physical and financial resources. The strategies proposed by the study shall have a favorable effect on the efficacy of management education in India in the years to come.*

**Keyword:** *Hybrid workplace, Management Education, Model*

---

### **Introduction**

A hybrid workplace system is extensively used by organizations to function in a much better form in comparison to a routine work order system. It gives flexibility to employees at work and instantly shrinks unnecessary costs for companies. The recent developments unfolded by the covid-19 hint that hybrid workplace model is a new reality in the higher education sector (Sahu, 2020) and Yamin, (2020). It is going to emerge as a permanent feature for knowledge transaction in universities across the world. However, it is only a matter of time before physical universities and colleges would disappear and the robust growth of online teaching technology would takeover in all domains of higher education. The system is overwhelmingly technological driven and its efficacy is significantly examined on the theoretical framework of the Technological Acceptance Model (TAM) and theory of planned behaviour (TPB). The TAM assumes that any technological solution if deemed useful and easy to use enjoys acceptability and leads to wide adaptability. While TPB identifies the behavioural recognition and support for technological adoption. The TAM model is convenient, simple and easy to use specifically in service work settings. The TPB model identifies forceful factor for individuals' behaviour. These two models have a significant role in finding the adaptability of a hybrid workplace system in higher education. The TAM and

---

<sup>1</sup> Associate Professor, Department of Commerce, Central University of Kashmir; email:drshahmehraj@cukashmir.ac.in

TPB models in fact are the derivatives of the Rationale Behaviour Theory (RBT). The RBT hints that rational behavioural dispositions of an individual are an outcome of presumed convenient use and expected benefit thereof. These models have been widely used to study the efficacy of hybrid workplace systems including the online teaching-learning process. Davis (1986) says that perceived ease of use also influences in a significant way the attitude of an individual through two main mechanisms: self-efficacy and instrumentality. Supporting the view Bandura (1982) explains that the more a system is easy to use, the greater should be the user's sense of efficacy. Similarly, Lepper (1985) says that a tool that is easy to use will make the user feel that he has control over what he is doing. Efficacy is one of the main factors underlying intrinsic motivation (Bandura 1982; Lepper 1985) and it is what illustrates here the direct link between perceived ease of use and attitude. Perceived ease of use can also contribute in an instrumental way to improving a person's performance. A similar opinion is put by Meyer (2014) that acceptance is prima-facie for satisfaction and the two are positively linked. He views that student engagement with online education as essentially based on their liking to use and belief to gain academic knowledge. Alike to this, the research of Han et al. (2021) has shown that participants overwhelming involvement with online learning unarguably are due to technological acceptance. Nevertheless, the research has shown that student satisfaction with online education is the outcome of many other multiple factors besides the technology and behavioural intentions shaped by convenience to use and benefit expectations criteria. They include schedule and venue flexibility, repeatability or retrievability of online class lecture/ discussion, and convenience to learn. Moreover, many other arguments are associated with e-learning. They include accessibility, affordability, flexibility, learning pedagogy, life-long learning, and policy are some of the arguments related to online pedagogy. It is said that online mode of learning is easily accessible and can even reach to rural and remote areas. It is considered to be a relatively cheaper mode of education in terms of the lower cost of transportation, accommodation, and the overall cost of institution-based learning. Flexibility is another interesting aspect of online learning; a learner can schedule or plan their time for completion of courses available online. Combining face-to-face lectures with technology gives rise to blended learning and flipped classrooms; this type of learning environment can increase the learning potential of the students. Students can learn anytime and anywhere, thereby developing new skills in the process leading to life-long learning. The government also recognizes the increasing importance of online learning in this dynamic world says Shivangi (2020). Despite these host of benefits, the online teaching-learning system is somewhat of a new platform where stakeholders are not yet fully comfortable to realise their objectives. They suffer on many counts and fronts under the hybrid workplace system. Therefore, to plug those bottlenecks in the hybrid workplace model, the study finds that the model needs to be designed and built according to the requirements of a real teaching-learning mechanism. It is accordingly, the study proposes strategies based on the needs of the subject to make hybrid workplace/ online education more beneficial and effective for all the stakeholders.

### **Literature Review**

The pyramid of hybrid workplace model is founded upon latent work centric concept which widely revolves around few terms like work flexibility and freedom, excessive leisure at work, work from home and of course work from anywhere. These concepts are overwhelming use in present times within the corporate world including in the higher education sector as well. In fact, covid-19 work from home emerged a new work norm in corporate sector. It (covid-19 pandemic) has changed the rules of work and work-related laws and bindings. Employers no longer hold their subordinates at the workplace for five days of week and workers are also not ready to work at the office for a whole week. This new order

got unfurled through the adoption of a hybrid workplace model that many corporate houses have applied and understood its efficacy. In the higher education sector, all across the world including in India the hybrid workplace system got significant adoption and knowledge distribution by teachers is executed through the online mechanism. However, the seamless access to the internet and availability of equipment for learners has remained a challenge in many parts of the globe. The similar observations were revealed by UNESCO (2020) which reads as “among students, a major challenge is that most students have no access to the online teaching due to lack of either to acquire the requisite gadgets or due to economical and digital divide”. The Technological Acceptance Model (TAM) and theory of planned behaviour (TPB) have remained the guiding cantors for the infusion of a hybrid workplace model in the industry work system and higher education sector for its stakeholders. In this context, Bolliger, (2004) has observed that three vital factors faculty, interactivity and technology affect the acceptance of a hybrid workplace model. Han et al. (2021) analyzed the satisfaction level of students with online education and found that major factors impact student satisfactions are with online classes and technology acceptance. The research of Keller et al. (2002) shows that student’s acceptance the online education platform due to its convenience, simplicity, flexibility, utility, brevity and confidence in computer use positively affect acceptance of online education. Besides the need to shift to the remote learning format has also been assessed as a good opportunity for teachers and students to become stronger, more creative, and innovative (Yokozeki, 2020). Similarly, Deepika (2020) has found that the Online channel has made education convenient and easily accessible by one and all, however, the faculty is not overwhelmingly in favour of this mechanism of education. Contrarily, the research of O’Malley & McGraw, (1999), Zeng and Perris (2004) and Deepika (2020) have shown that students when enroll for online classes initially feel that they are unable to learn as much in online courses as they used to in face to-face courses. This dissatisfaction further effects the learning process. Supporting the debate, Fortune, Spielman, and Pangelinan (2011) observed that hybrid teaching learning system is somewhat uniform on many counts with real classroom setting and students learn almost equally in differences in student satisfaction levels when online classes were compared to face-to-face learning of English as a foreign language. Favours the argument Deepika (2020) has observed a low level of effectiveness of the hybrid education system for all stakeholders. Similarly, the research of Abbasi et al. (2020) show that students largely prefer the conventional education system over hybrid education. Nevertheless, it is widely used by both male and female students everywhere. Harvey et al. (2017) say that online education is uniformly and equally used by all genders. Contrary to this, the research of Martin & Bolliger (2018) has revealed that the level of satisfaction of female students is somewhat better than male students. Whereas, Venkatesh et al. (2020) reported that male students possess significantly high computer self-efficacy and satisfaction than the females.

Extending the debate further a valid argument raised is whether the hybrid workplace model is equally qualitative and productive as in the non-hybrid format in the education sector. The earlier research Longqi et al (2020) have shown that a hybrid workplace mechanism has reduced the collaborative and teamwork spirit, workers ties and full-time learning opportunities and pushed the workers into isolation and outside the social cohesion. The similar observation is put by Hrastinski (2008). The author hints that team based and group centric learning is minimum and least visible in hybrid workplace system in education sector. Looking at the hybrid work place mechanism closely, Praghlapati (2020) found that the system provides an alternative way to minimize either the contact between students themselves or between the students and lecturers. The work-based learning mainly influenced by the organizations culture, work climate, role of supervisors, learners’ inquisitiveness and

challenges he desires to conquer has somewhat different orientation in real and face to face work situations. The scenarios is of course unmatching under hybrid work environment. The organizational cultural, social, behavioural and climatic factors operate differently and affect the workers learning aptitude and opportunity. The same is equally true with higher education characterized on hybrid or online format. The research of Hrastinski (2008) has shown that online learning and participation is not purely measurable and is 'a complex process combining doing, communicating, thinking, feeling and belonging, which occurs both online and offline. Therefore to address this bottleneck of workplace hybrid domain, Kling, McKim and King (2003) proposed a model based on socio-technical interaction network (STIN) , which hints to form digital repositories and discussion spaces to work as networks of researchers or professionals. They suggest that 'the insights from STINs can also be extended to other electronic communication forums, including distance education electronic classrooms, professional development sites, and even community forums such as Weblogs or auction sites.' (Kling et al, 2003, p.48). Nevertheless, in the backdrop of the existing literature discourse on the domain it is more vivid that the hybrid work place model and strategies for its effective execution are yet to be identified and craved as there is no founded and supported research which has addressed the issue. Therefore, to overcome this research vacuum the present study has been undertaken.

### **Objectives**

The study has been undertaken to attain the following objectives

- To identify and propose relevant strategies for effective execution of hybrid work place mechanism
- To present model for effective implementation of identified strategies for hybrid work place mechanism in business education.

### **Research Methodology**

The study is purely exploratory in nature and there is no past valid and sufficient research evidence which can be used as edifice for present research on the domain of the study. Nevertheless, the study on the basis of its rationale adopted logical and research centric approaches to identify the relevant strategies for effective operation of hybrid work place model based on the existing cantors in higher education across the world in general and for India in particular. Accordingly, the study adopted a multipronged approach which included:

a) Conducted a wide range of literature review connected closely and distantly with the subject and identified strategies which are already in operation and effective in many other work settings and have somewhat connectivity and proximity with the existing hybrid work system or work from home mechanism

b) Held extensive discussion with the varied groups of individuals and experts on the thrust subject of problem and based on their expert opinion identified strategies relevant for the better operation of hybrid work place model.

c) Discussed the problem with multiple stakeholders of the education system including students, teachers and institutional management and based on the inputs from these multiple stakeholders of education system, the study underlined areas which need focused attention, routine follow up and somewhat a casual look and accordingly, identified in total seven (07) strategies which if followed systematically surely would make hybrid workplace system more effective, robust in higher education system.

d) Developed a model for hybrid workplace system for business education. the model is working collectively with the active role of three main stakeholders of business education, including institution, faculty, and students.

### **Hybrid Workplace Model**

Against the backdrop of the relevant literature review and conceptual frame laid by the Technological Acceptance Model (TAM) and Theory of Planned Behaviour (TPB), a hybrid workplace model exclusively for business education was developed by the author to enhance the efficacy and objectivity of online education. The model has been built on the following elements:

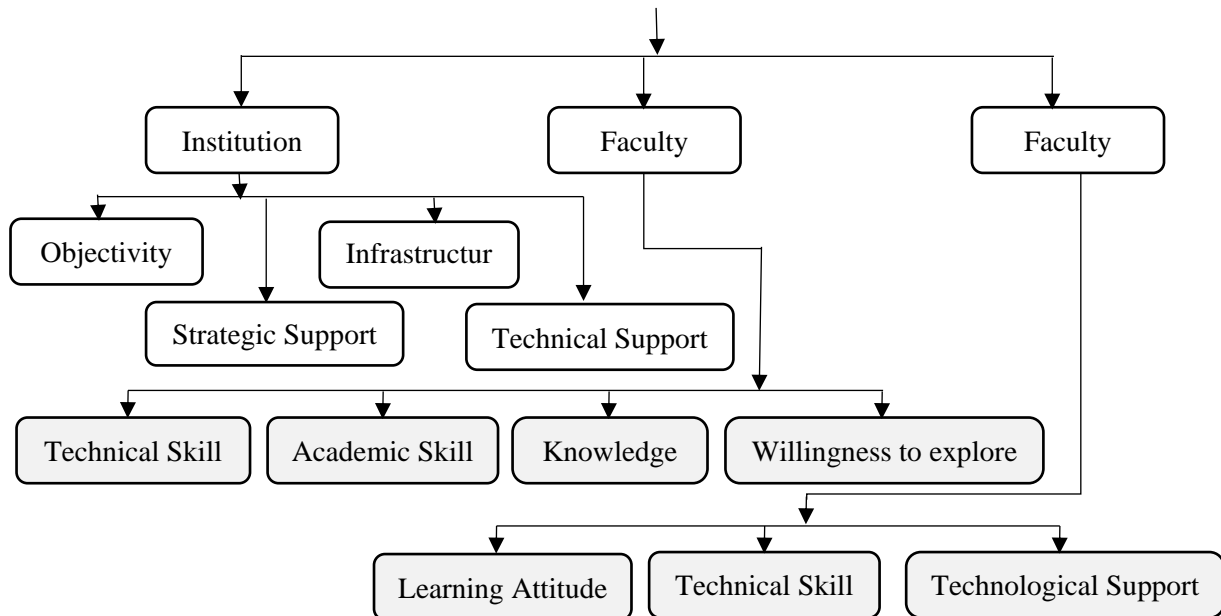
- a. Stakeholders- institution, Faculty and Students
- b. Adequate Resources (Financial and technical resources- equipment, internet etc)
- c. Skilled and knowledgeable human resources (technical, functional skills and knowledge, commitment)
- d. Institutions' commitment to introducing a hybrid workplace system (institutional policy support and facilitating resources etc)
- e. Development of strategic policy discourse (broad policy measures for a hybrid workplace system)
- f. Technology Acceptance Behaviour in Students and faculty (willingness and adaptation to technology and hybrid teaching and learning system)
- g. Securing Financial and academic leverage (cost-saving and expanding academic outreach)

Therefore, the model rests on the following assumptions:

1. The institution is keen to introduce a hybrid education system and has adequate resources to executive the same on-ground.
2. There are three main stakeholders of business education institution, faculty and students
3. The institution puts in place all backend technology for the successful operation of a hybrid workplace system.
4. The institution believes a hybrid workplace system is going to be a future reality and may replace the existing offline education system.
5. The institution upskill its workforce, including teachers and students, on how to navigate online education effectively.
6. The hybrid workplace system improves an institution's financial performance and helps in expanding its presence and enrollment.
7. Institutions design appropriate policy strategical discourse for the effective execution of a hybrid workplace system specifically in business education.

The model primarily takes off with the initiatives of institutional management through building strategic objective functions and placing all back-end technology, infrastructure, and internet systems in operation. It is followed by a commitment from the faculty and their technical skills honed by themselves and through institutional training, academic knowledge, students learning attitude, technical skills, and institutional technological and knowledge dissemination policies collectively lead to the effective execution of a hybrid workplace system in business education. Accordingly, the conceptualized as under.

### Hybrid Workplace Model for Business Education



Based on the framework of the model, the seven strategies identified are undertaken for discussion and analysis as under

#### Analyses and Discussion

Necessity is the mother of invention. The invention overwhelmingly came into the limelight in the post-pandemic era. The hybrid Workplace mechanism is a new work order and a great gift of pandemic. Although, in the pre-pandemic era it was functional at a limited scale but was overwhelmingly experimented by organisations on the onset pandemic. The system on the dent of its excessive convenience is gaining gradual adaptability and surely would become a wide reality in all work settings across the world including in India, provided some plausible and effective strategies are devised and executed especially for higher education sector which has significantly used this model for dissemination of education and transaction of course curriculum during Covid-19. In India higher education is a quiet vast sector spread over around 2000 universities and 4000 colleges engaging about 5.30 lakhs student community 10000 teachers. The sector engages students in learning process predominantly in offline mode. However, during the [post pandemic period the sector has fully switched to offline mode and as a result, it experienced significant number of challenges and problems. Therefore, to overcome such issues confronted by the sector, this study proposes some relevant strategies for improving the overall efficacy of hybrid higher education.

#### I. Getting Employee buy-in Early

Hybrid work place model in education is somewhat a new system to which its stakeholders especially employees were not overwhelmingly familiar. The model is full of challenges for faculty/ employees, as it demanded added technical skill along with mental and emotional support from the faculty to use the techno driven teaching process. The research of Swaggert et al., (2020) has shown that faculty members in most of universities and college expressed their dismay to use this approach for teaching to students during the covid-19. This was predominantly due to the minimal time available to them for transition from traditional to online education. Moreover, the lack of professional development to train educators in best

practices of online teaching, and the stress created for those with a vested interest in education were the other challenges confronted by them. However, the argument is raised that Web-based tools, repositories and environments are being exploited not only for professional qualifications (Waldman & Rafferty, 2008) but also for workplace training (Newton, Hase & Ellis, 2002, Arbaugh, Godfrey, Johnson, Pollack, Niendorf, & Wresch, 2009), access to evidence-based practice (Gilgun, 2005) and for continuing professional development (Anderson & Kanuka, 1997, Vrasidas & Zembylas, 2004). The effectiveness of technology-enhanced learning in relation to the functions and constraints of workplaces is a key issue, although the diversity of such contexts presents a challenge in terms of the frameworks and issues pursued by researchers. Consistent to this, the research showed that faculty were initially struggling to know more and more about it and in this process at times they showed gross resistance to this new model. In this context, the Fish and Wickersham (2009) opine that teaching online requires a faculty member to think differently about teaching and learning, learn a host of new technological skills, and engage in ongoing faculty development for design and development of quality online instruction. Therefore, it appears somewhat difficult for the board management to see its successful and effective execution. Accordingly, it is proposed that employees in the sector should be fully sensitized about the change and enhance their mental readiness to adopt hybrid work place system. For these purposes, the management should engage into deep down communication process with employees to explain the central purposes of the hybrid work place model and value driven approach for using the same. The executive management should be ready to provide explanations and answers to the questions that teams and groups of employees raise on this system. The prudent strategic approach would be to form groups of core employees or faculty members of the institution, educate them for new transition and seek their full involvement and commitment for pushing the system for operation at all levels vertically and horizontally.

## **II. Invest in the right tools, equipment, and technology**

The hybrid workplace model is altogether different from the conventional teaching-learning approach. It is fully technologically driven and web-supported. The model would turn dysfunctional if it is not welded with the requisite tools, equipment, technology, and robust internet system. The higher educational institutional leadership has to make available technological equipment to see effective execution of the same. Unfortunately, online education has turned more of a casualty than a successful reality in many third-world countries including India, Sri Lanka, Bangladesh, etc due to poor connectivity issues and lack of basic backend infrastructure. Pertinent to this, Swaggert et al., (2020) has observed that teaching and learning practitioners across the world continue to develop knowledge and skills to face the disruptions created by the worst pandemic of the 21st century thus far, this disruption presents unique opportunities to address long-lived educational inequities. This event has sorrowfully made educators and leaders realize that many students in urban and rural cities had been left completely disconnected from the educational process due to a lack of internet accessibility. Moreover, research of Mendenhall, (2020). has shown that in many parts of the world students were not having laptops and smartphones to attend online sessions and unlearned their major course content. Yet, for those who were able to connect virtually, achievement differences were observed across subject matter areas (math learners facing more challenges) and grade levels (younger learners facing more challenges); while underscoring the overall inequities already in existence due to factors such as infrastructural differences.

## **III) Focusing on employee experience and maintaining a positive and engaged culture**

The hybrid work system has done a commendable task in higher education all across the world through the collaborative support and efforts of experienced teachers and faculty members. It

has taken the classroom to the home of students with the help of technology, positive work attitude and culture. The experienced and committed teachers have come up to their responsibilities and led a hand holding to learners during the pandemic. This environment has given new hope and expectations. The experience and level of maturity of teachers have helped excessively to student community in the online teaching learning process. In this context, Sally Diviner Yaa Adzaku<sup>1</sup>, Hayford Daniel Adzakup (2022) says teachers dealt with students with compassion and love during the online teaching process. They not only provided assignments, homework, quizzes but also their feedback on assignments, suggestions and study materials to prepare for examination. Similarly, the research of König, Jäger-Biela and Glutsch (2020) explored how teachers maintained social contact with students during lockdown in Germany. They found that majority of teachers reported they managed to communicate with students and parents on a regular basis. However, teachers also reported having contacted and helped students who needed extra support. Also, it was shown that online classes and assignments were provided weekly with regular feedback given. A report by the University of Jyväskylä (2021) in Finland quoted by Sally Diviner Yaa Adzaku<sup>1</sup>, Hayford Daniel Adzakup (2022) also showed that students preferred receiving lectures along with assignments and regular feedbacks during the period of the COVID-19 lockdown. The gesture was wholeheartedly and openly acknowledged by students and raised the satisfaction level of students with online learning system. The similar tempo if maintained can lead to a wider adoption of hybrid workplace model. Therefore, the higher education institutions need to widely engross the similar culture of teacher's engagement with student community to cement an environment of learning and let learning as a core philosophy. For these purposes, institutions have to inculcate a wide institutional culture of empathy and sympathy towards all stakeholder especially between students and teachers to enable them to transact their business for their mutual advantage.

#### **IV. Offering continuous education opportunities for employee**

Employees are the key resources for an organization. They are in fact the core strength of business for present and future provided they are groomed and trained to become proficient and more capable. The past research of Aristovnik, Keržič, Ravšelj, Tomažević and Umek (2020) has shown that continuously trained employees prove more effective for organizations compared to low or less trained employees. In this context, for the hybrid education it is imperative that employees especially the teachers are continuously trained and updated to operate teaching learning gadgets for effective transmission of knowledge among students. The institutional leadership therefore should fix on the job training capsule for its employees for teaching and learning activities. This will help them to reach to student community through online mode easy, conveniently and effectively. Supporting the argument the research of Imad (2020) has shown that low support system coupled with negligible technical skills has impacted the effectively delivery of online education. Computer-mediated learning offers management trainers and educators the opportunity to transform pedagogical practices, shifting instruction from the physical to the virtual classroom (Hiltz, 1994). Technology-supported innovation in course design has been advocated by a number of authorities as a necessary and progressive step forward in the way we deliver business education (Albrecht & Sack, 2000; Ives & Jarvenpaa, 1996; Lenzner & Johnson, 1997). Reliability and sufficient availability of Information Communication Technology infrastructure, learning tools, digital learning resources in the form of Massive Open Online Courses, e-books, e-notes, and so on are of utmost importance in such severe situations (Huang et al., 2020).



## **V. Encouraging Employee Engagement and Connectivity**

A hybrid workplace system helps employees to work distantly and away from the limits of an organization. This is being done distinctively for the benefit of both employees and employers and predominantly to ease the repetitive commuting inconvenience of employees to attend the workplace physically and save some operating costs for employers. However, the arrangement unfolds some misadventures and disadvantages for both groups. It minimizes physical connectivity and in-person interaction between and among employees of an organization. Consequently, the employees more often experience disconnected from each other and lose learning opportunities from peers and fellow colleagues. This has been confirmed by the past research of (Lenz et al 1997) especially in business educational institutions, where junior teaching faculty engage themselves in discussion and dialogue with their senior colleagues and learn significantly from the rich knowledge and experience of their seniors. The disconnect, at times, impacts the performance and efficiency level of employees, who feel somewhat unfulfilled and deficient in something that they otherwise enjoy from social interaction and work-centric knowledge and ultimately leaves an undesirable impact upon employer's profitability etc. under this work system, HR teams will have to focus on keeping employees feeling connected when their staff is working from anywhere at any time. Developing "virtual water cooler" opportunities and other chances for employees to interact and connect in non-physical settings will be key to designing a healthy hybrid workplace. As will be able to use technology to take the pulse of the workforce and course correct as needed.

## **VI. Holding consistent team check-ins and career progress meetings**

A hybrid workplace system is becoming a major challenge for organizations to secure employee team bonding and progressive outcome from teams. The employee teamwork approach is becoming highly complex and somewhat unmanageable under a hybrid workplace system mainly due to the frequent disconnect of employees through the work-from-distance system. The mechanism more often hits the average productivity and efficiency of employees. The past research of **Oliveira et al. (2006)** has confirmed that a hybrid workplace system reduces the face-to-face connection between employees and wedges social isolation and emotional disconnect. Similarly, the research of **Hussein and Rolstadås, (2002)** has revealed that teamwork disintegrates and disappear progressively in offline working arrangements and pushes employee to think and work individually on many official problems which otherwise are often resolved collectively by teams under a normal work environment. Therefore, it is somewhat more advisable that the HR manager has to ensure that teams work with a similar spirit and dynamism under a hybrid work system and conduct regular teamwork audit to ensure that it does not get derailed due to infrequent personal connection. The HR manager must engage members of teams in frequent meetings, discussions, and consultations both online and offline to see how best the teams continue to work with a great amount of cohesiveness and welded group to foster team-based solutions and course of action team-specific problems. The team-based tasks be aligned in employees.

## **VII. Tracking goals and performance metrics**

Organizations work for the attainment of well-defined goals. The goals of an organization are the basic milestone that are constantly reviewed by strategic decision-makers to see if some future changes are required or not to attain prefixed goals. The past research (Bolliger, 2004) has shown that individual employee goals are subservient to organizational goals and usually are in tune with overall organizational goals. This in other sense hints the organization and individual employee goals are not at variance to each other in most of the organization and their attainment predominantly is dependent upon employee work performance. However, the employees' performance is embedded upon the organizational

work climate and quality of work life that employees experience. Therefore, employee performance metrics is largely an outcome of multiple factors that organizational leaders have to hone and push for execution to support the attainment of objectives. The HR manager in the context of a hybrid workplace model system should continuously audit and evaluate organizational goals and review employee performance supporting to attain organizational objectives. The hybrid work model in the context of business education demands that organizations find a reasonable niche between its own goals and employee goals. In this context, it will be suitable the organization should foster an environment that could raise the performance content of employees and help them to push the organizational and personal goals toward achievements.

### **Conclusions**

The strategies underlined by the study have potential to enhance efficiency and effectiveness of the hybrid workplace system especially in the business education system.

### **Limitations of the Study**

The study is limited to the proposition of strategies for the effective execution of workplace system and it strongly lacks the practical discourse for effective implementation of the proposed strategies. Moreover, the strategies proposed are predominantly relevant to the business education and can be somewhat extended to the other domains of education.

### **References:**

- Abbasi, S., Ayoob, T., Malik, A., & Memon, S. I. (2020). *Perceptions of students regarding E-learning during Covid-19 at a private medical college. Pakistan Journal of Medical Sciences, 36(COVID19-S4), S57.*
- Albrecht and Sak (2000) quoted in *Virtual Learner -Centered Solutions For Management Education And Training* by Richard Walker ( 2020) *Knowledge Management and Management Learning*
- Arbaugh, J. B., Godfrey, M. R., Johnson, J., Pollack, B. I., Niendorf, B. & Wresch, W. (2009). *Research in online and blended learning in the business disciplines: Key findings and possible future directions. The Internet and Higher Education, 12, 71-87.* <http://dx.doi.org/10.1016/j.iheduc.2009.06.006>
- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). *Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. Sustainability, 12, 8438.*
- BANDURA A. (1982), *Self-efficacy mechanism in human agency, American Psychologist 37 (2) 122-147.*
- Bolliger, D. U. (2004). *Key factors for determining student satisfaction in online courses. International Journal on E-learning, 3(1), 61-67.*
- Davis, F. D. (1989). *Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS quarterly, 319-340.*
- Deepika (2020) “*The impact of online learning during COVID-19: students’ and teachers’ perspective*” *The International Journal of Indian Psychology ISSN 2348-5396 (Online) | ISSN: 2349-3429 (Print) Volume 8, Issue 2, April- June, 2020*
- Fortune M, Spielman M and Pangelinan D (2011) *Students’ perceptions of online or face-toface learning and social media in hospitality, recreation and tourism Journal of Online Learning and Teaching 7(1) pp 1-16*
- Gilgun, J. F. (2005). *The four cornerstones of evidence-based practice in social work. Research on Social Work Practice, 15(1), 52-61.* <http://dx.doi.org/10.1177/1049731504269581>
- Han, J. H., & Sa, H. J. (2021). *Acceptance of and satisfaction with online educational classes through the technology acceptance model (TAM): The COVID-19 situation in Korea. Asia Pacific Education Review, 1-13.*

- Harvey, H. L., Parahoo, S., & Santally, M. (2017). *Should gender differences be considered when assessing student satisfaction in the online learning environment for millennials?. Higher Education Quarterly*, 71(2), 141-158.
- Hiltz (1994) quoted in *Virtual Learner -Centered Solutions For Management Education And Training* by Richard Walker (2020) *Knowledge Management and Management Learning*
- Hrastinski, S. (2008). *What is online learner participation? A literature review. Computers & Education*, 51(4), 1755-1765. <http://dx.doi.org/10.1016/j.compedu.2008.05.005>
- Imad, M. (2020). *10 Teaching strategies to support students and help them continue to learn during this time of uncertainty. Retrieved from <https://www.insidehighered.com/advice/2020/03/17/10-strategies-support-studentsand-help-them-learn-during-coronavirus-crisis>*
- Jarvenpaa (1996) quoted in *Virtual Learner -Centered Solutions For Management Education And Training* by Richard Walker (2020) *Knowledge Management and Management Learning*
- Keller, C., Hrastinski, S., & Carlsson, S. (2007). *Students acceptance of e-learning environments: A comparative study in Sweden and Lithuania*
- Kling, R., McKim, G. & King, A. (2003). *A bit more to it: Scholarly communication forums as socio-technical interaction networks. Journal of American Society for Information Science and Technology*, 54(1), 47-67. <http://dx.doi.org/10.1002/asi.10154>
- Kling, R., McKim, G. & King, A. (2003). *A bit more to it: Scholarly communication forums as socio-technical interaction networks. Journal of American Society for Information Science and Technology*, 54(1), 47-67. <http://dx.doi.org/10.1002/asi.10154>
- König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). *Adapting to online teaching during COVID-19 school closure: Teacher education and teacher competence effects among early career teachers in Germany. European Journal of Teacher Education*, 43(4), 608- 622
- Lenzner and Johnson (1997) quoted in *Virtual Learner -Centered Solutions For Management Education And Training* by Richard Walker (2020) *Knowledge Management and Management Learning*
- Martin, F., & Bolliger, D. U. (2018). *Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. Online Learning*, 22(1), 205-222.
- Meyer, K. A. (2014). *Student engagement in online learning: What works and why. ASHE higher education report*, 40(6), 1-114.
- Newton, D., Hase, S. & Ellis, A. (2002). *Effective implementation of online learning: A case study of the Queensland mining industry. Journal of Workplace Learning*, 14(4), 156-165. <http://dx.doi.org/10.1108/1366562021042728>
- O'Sullivan, D., Precuo, L. E., Duffy, P., van Dongen, S., & Guochao, X. (2002). *Survey of existing manufacturing curricula. GEMEUEUROPE project report, Galway, Ireland*
- O'Sullivan, D., Rolstadås A., & Filos, E. et al. (2009). *Global education in manufacturing strategy. Journal of Intelligent Manufacturing. Published online October 15, 2009.*
- Oliveira, M., Andersen, B., Oliveira, A., & Rolstadås, A. et al. (2006). *The impact of serious games in the European industry. In Proceedings of 10th international workshop on experimental interactive learning in industrial management, Trondheim. June 11–13, 2006.*
- O'Malley, J., & McGraw, H. (1999). *Students perceptions of distance learning, online learning and the traditional classroom. Online Journal of Distance Learning Administration*, 2(4)
- Pragholapati, A. (2020). *COVID-19 impact on students. EdArXiv [Preprint]. 1–6. doi: 10.35542/osf.io/895ed*
- Sahu, P. (2020). *Closure of universities due to Coronavirus Disease 2019. (COVID19): impact on education and mental health of students and academic staff. Cureus*, 12, e7541. doi: 10.7759/cureus.7541
- Sally Diviner Yaa Adzaku I , Hayford Daniel Adzakup (2022) *Impact of COVID-19 on the Nature of Academic Work in Colleges of Education in Ghana Technum Social Science Journal, Vo 27- 117-130, January 2022, ISSN 2668-7798*

- Shivangi Dhawan (2020) *Online Learning: A Panacea in the Time of COVID-19 Crisis* *Journal of Educational Technology Systems* 2020, Vol. 49(1) 5–22
- UNESCO. (2020a). *Education: From disruption to recovery*. Retrieved from <https://en.unesco.org/covid19/educationresponse>
- University of Jyväskylä. (2021). *Students hope that making of recorded lectures will continue also after COVID-19*. Retrieved from <https://www.jyu.fi/science/en/current/current/students-hope-that-making-of-recordedlectures-will-continue-also-after-covid-19>
- Venkatesh, S., Rao, Y. K., Nagaraja, H., Woolley, T., Alele, F. O., & Malau-Aduli, B. S. (2020). *Factors influencing medical students' experiences and satisfaction with blended integrated E-learning*. *Medical Principles and Practice*, 29(4), 396-402
- Venkatesh, V., Morris, M.G., Davis, G.B. & Davis, F.D. (2003). *User Acceptance of Information Technology: Toward a Unified View*. *MIS Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>
- Vrasidas, C. & Zembylas, M. (2004). *Online professional development: Lessons from the field*. *Education & Training*, 46(6/7), 326-334. <http://dx.doi.org/10.1108/00400910410555231>
- Waldman, J. & Rafferty, J. (2008). *Technology-supported learning and teaching in social work in the UK – A critical overview of the past, present and possible futures*. *Social Work Education*, 27(6), 581-591 <http://dx.doi.org/10.1080/02615470802201531>
- Yamin, M. (2020). *Counting the cost of COVID-19*. *International Journal of Information Technology*, 20, 1–7.
- Yang, Y., & Cornelius, L. F. (2004). *Students' perceptions towards the quality of online education: A qualitative approach*. *Association for Educational Communications and Technology*, 27, 861–877.
- Yokozeki, A. (2020). *COVID-19 webinar*. Retrieved from <https://en.unesco.org/news/covid-19-webinar-newworld-teachers-educations-frontlineworkers>.