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Impact of Digital Transformation on Academicians' Well-being: A Study with the Moderating Role of Public and Private Universities in India

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Abstract

This research is identifying and compares the impact of digital transformation on academicians' well-being in public and private Indian universities. To initiate the research, one exogenous construct namely 'virtual transformation in higher education,' and two endogenous constructs called 'workplace well-being' and 'psychological well-being' of academicians have been identified. The data has collected from 395 respondents segregated into academicians from 213 public and 182 private Indian universities. Research hypotheses are developed to find the significant difference among academicians of public and private universities with regard to the impact of virtual transformation on their well-being. The Multigroup Analysis (MGA) technique of PLS-SEM has been used to investigate the result. It has been revealed that although the overall association is negative between virtual transformation and academicians' well-being, this negative association also has a significant difference when compared among public and private universities in India.

Keywords

Digital Transformation; Academicians' Well-being; Public University; Private University; PLS-SEM.

I. Introduction

The revolutionary change in the field of information technology has transformed the use of digital technologies in the present era. This digital transformation is impacting every aspect of communication, starting from the very basic interpersonal interaction to the level of the integration of complex large-scale infrastructures (Hanseth, 2010). A pandemic like Covid-19 has instigated and fueled digital transformation in organizations, including education, to achieve educational goals and objectives (Gabryelczyk, 2020). Digital transformation provides accessibility, increasing engagement and making an interactive and customized teaching-learning environment (Vahedi et al., 2021). Although digital transformation in education is the need of the hour for managing the upheaval created by Covid-19, it also has a close association with academicians' well-being. Academicians were not well acquainted with the use of digital technologies to connect with students. The majority of the teachers used digital tools for the first time which increased anxiety in the initial days (Kim & Asbury, 2020).

In March 2020, a complete lockdown was announced in India which compelled academicians to come on the technological platforms to continue the teaching-learning process. The University Grant Commission (UGC), the apex body for higher education in India, issued the guidelines for the universities to follow a six-day teaching-learning schedule, develop virtual classrooms using ICT tools and train the teachers to deliver their knowledge using digital platforms. Teachers' training related to the use of online tools, e-content development, and delivery in a virtual mode was vital for the continuity of teaching and learning in the country (Gohain, 2020). During the online webinar in May 2020, Dr. Ramesh Pokhriyal "Nishank", former minister of education of India announced that teaching learning in the form virtual classroom is essential to save the academic year of the students. He also emphasized on the adequate training of the academicians for the use of ICT and online teaching tools (Joyce, 2020).

Covid-19 has intensified the integration of digital transformation in the field of education. Adaptation to the digital shift by redesigning, reshaping, and reframing the teaching-learning environment was quite challenging for the teacher's community. Covid appropriate behaviour comprising social distancing, isolation, and restriction on social gathering have also created excessive pressure both internally and externally to an individual which has impacted their mental, emotional, and overall well-being (Dong & Bouey, 2020). Academicians are also affected with this turbulence and their physical and mental well-being in this pandemic got impacted. Teachers' well-being is vital because their well-being is also connected to the student's learning and development (Collie & Martin, 2020).

Though there have been discussions on the effects of online learning on students' well-being (Huang & Zhang, 2022), there is a paucity of literature on academicians' well-being regarding the effects of the abrupt change to online teaching. Here in this research, the type of university i.e., public and private will be used as a moderating variable to analyze the impact of digital/virtual transformation on the well-being of academicians in India. Acceptability and concerns of digital transformation in education will also be explored. This research will try to identify the relationship of digital transformation with the well-being of academicians and understand the role of public and private universities to tweak and adjust these relationships.

II. Literature review

The process of rapid digital technology adoption is known as Digital Transformation (Kretschmer & Khashabi, 2020). Digital transformation is integrated in all kinds of industries and businesses including education (Andal et al., 2003; Rogers, 2016; Ustundag & Cevikcan, 2017). Educational institutions have adopted this change of virtual transformation promptly to enhance the teaching-

learning process (Abad et al., 2020; Thoring et al., 2018) and to provide online learning by interconnecting students and teachers together (Mahlow & Hediger, 2019). Information and Communication Technology (ICT) makes this transformation happen in the real context of online classrooms (Melo et al., 2020). Singh and Thurman (2019) defined online learning as a learning experience in synchronous and asynchronous environments using different devices (e.g., mobile, desktop, laptops, etc.) with internet access. The advantage of creating such an environment is that students can remotely learn and interact with instructors and their peer groups. The teaching and learning process when blended with technology, make education accessible 24 x 7 (Klassen & Tze, 2014; Seidel & Shavelson, 2007).

Covid – 19 has shifted both teachers and students to an online platform to explore the possibilities for continuing education with the help of virtual transformation (Lederman, 2020). It has been observed that teachers find it challenging to motivate, engage and create interest in students towards learning in an online mode (Higher Ed and The Coronavirus, 2020). The shift from physical to virtual wasn't an easy process. High-end technological intervention is required for creating virtual classrooms, online assessment, content development, curriculum design, document sharing, and student engagement in an efficient and effective manner (Mahalakshmi & Radha, 2020). Remoteness, interpersonal communication, and technology are the three key issues of an online environment. An innovative teaching pedagogy can help to overcome such challenges (Liguori & Winkler, 2020).

A transitional phase of teachers from offline to online is demanding because teachers do not have sufficient knowledge of using technology efficiently (Gülbahar & Adnan, 2020; Kyei-Blankson et al., 2019; Mohr & Shelton, 2017). So, they are left with no choice but to adapt themselves according to the changing scenario and needs (Allen & Seaman, 2016; Cutri et al., 2020). It was a difficult task for academicians to adapt to this transformation because they were not having any past teaching experience and familiarity with the technological platforms (Petzold, 2020; Carey, 2020). Many of the teachers were not tech-savvy and had no exposure to online learning prior to this pandemic. It was quite demanding for them to change their conventional way of teaching to digital form (Bailey & Card, 2009). It was noticed that the unexpected shift to an online mode has increased the workload of teachers and the pressure of completing the academic term on time further leads to stress (Marek et al., 2021).

The well-being of academicians is a matter of concern in recent times. Well-being can be elaborated with Hedonic and Eudaimonic perspectives. Hedonic well-being relates to positive aspects of wellbeing and life satisfaction (Kahneman et al., 1999) whereas Eudaimonic well-being is all about happiness that eventually helps to attain self-actualization and gives meaning to life (Ryan & Deci, 2001; Stewart & Janmohamed, 2008). It has been found that long-term academic stress in teachers has an adverse effect on their performance and well-being (Mahapatra & Sharma, 2020). The low level of intrinsic - motivation of teachers has a strong association with academic-related stress (Liu, 2015) which further leads to academic disengagement (Liu & Lu, 2011).

Many studies revealed that like other professions, teachers' mental health and well-being are also gradually deteriorating day by day due to high self and social expectations (Johnson et al., 2005; Stansfeld et al., 2011). It's important to look after the well-being of teachers because low teacher's well-being is not only hampering their mental health (Melchior et al., 2007) but also impacts students' performance. The well-being of teachers and students is always linked and has a close association with each other. The good relationship between teacher and student is also dependent on the well-being of each other (Kidger et al., 2009; Jennings & Greenberg, 2009). Low well-being may disturb this relationship (Jamal et al., 2013). The low well-being of a teacher has a major impact on the overall teaching-learning process as the teacher will not be able to create an

inclusive learning environment so the teaching will not be effective for the students (Jennings & Greenberg, 2009).

There are studies that explain the readiness of public and private universities for this sudden change on online education during Covid-19 (Yusuf & Jihan, 2020; Budur et al., 2021). In an online environment, teachers/academicians play a key role in the successful integration of technology with teaching pedagogy (Schildkamp et al., 2020). Academicians in both public and private institutions are using technology for preparing the sessions and to deliver the knowledge but due to insufficient skills in design and implementation, sometimes they are unable to optimize the use of technology in the teaching and learning process (Penado et al., 2021).

During Covid -19, academicians were facing stress, fear, and anxiety which in turn was impacting on their well-being. Academicians are worrying about the digital transformation where they are using online teaching to connect with their students and try to deliver knowledge in an efficient manner (Cheng & Lam, 2021). Though there is evidence that virtual transformation has an impact on academicians' well-being (Rizvi & Nabi, 2021), a comparative study is required to find the impact of virtual transformation on the academicians' well-being between public and private universities in India. Public and private universities in India are different in terms of technological setup, and teaching-learning resources (Aithal & Kumar, 2016). The pressure to adopt ICT in teaching-learning also varies. So, this research is trying to analyze the difference between academicians of public and private universities in India for the impact of virtual transformation on their 'Workplace well-being' and 'Psychological Well-being. The following hypothesis have been formed:

H1: There is a significant difference for the impact of digital transformation on Academician's workplace well-being in public and private universities.

H2: There is a significant difference for the impact of digital transformation on Academician's psychological well-being in public and private universities.

III. Methodology

a. Research objectives

The prime objective of this research is to identify and analyze the difference for the impact of digital transformation on academicians' well-being in public and private universities in India during Covid-19. So, the study will try to identify the association between digital transformation and well-being and this analysis will be moderated by the academicians' university (public and private) type. Factors related to digital transformation in higher education and academicians' well-being will also be explored.

b. Research Methodology

Measure

An exploratory research design has been used for this study. The primary data has been collected using a questionnaire which is segregated into three sections. The first section is focused to demographic data of the academicians (i.e., Gender, Type of institutions/university, and age). The second section includes items related to digital/virtual transformation in the teaching-learning process. The scale of digital transformation developed by Sjöberg & Lilja (2019) has been modified as per Covid-19 scenario and used for data collection. The third section of the questionnaire consists of a self-developed scale identifying the well-being of academicians during Covid-19. In

section two and three of the questionnaire, a 5-point Likert scale is used where 1 refers to strongly disagree and 5 refers to strongly agree.

c. Sampling Technique

The data has been collected from the academicians of public and private universities using the snowball sampling technique. An online questionnaire was floated to the academicians' pool with a request to respond and forward the same to their respective networks to increase the total number of responses. The data is collected from 395 academicians segregated into 277 males (70%) and 118 females (30%). From the total 395 academicians, 213 (54%) respondents are from public institutions/universities whereas 182 (46%) respondents are from Private institutions/universities.

Age group varies between 26 and 65 years. Although maximum respondents 42% are from the age group between 36 and 45 years.

IV. Data analysis

Two statistical tools SPSS and SMARTPLS (PLS-SEM) have been used for data analysis. SPSS is used for data entry, descriptive statistics, and factor identifications whereas SMARTPLS has been used for hypothesis testing using parameters of the inner and outer model.

To check the validity of the digital transformation scale i.e., 'Digital Transformation & Teaching Learning Process (VTTL)', exploratory factor analysis is implemented using the Principal Component and varimax rotation method.

Two items (elements) i.e. "I am using Massive Open Online Courses (MOOCs) to prepare sessions for online teaching during COVID-19." and "Virtual platforms usage created many health-hazards like eye-sight problem, headache, physical and mental exhaust etc. for me." were removed due to high cross factor loading and low communalities value. Now on the revised 10 items scale, exploratory factor analysis was again implemented to segregate items into appropriate factors. As per Table 1 below, the Kaiser – Meyer – Olkin (KMO) and Bartlett's test of sphericity have significant values of .798 and .000 respectively, which shows the appropriateness to use exploratory factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.798
Bartlett's Test of Sphericity	Approx. Chi-Square	1455.519
	Df	91
	Sig.	.000

Table 1. KMO and Barlett's Test
Source: The authors

All 10 items are clubbed together with the following factor loadings:

Virtual Transformation & Teaching Learning Process (VTTL)	
Items	Loading
Digital Transformation is a good opportunity for teaching and learning during the outbreak of COVID-19. (VTTL1)	.739
Virtual learning is improving my teaching pedagogy during COVID-19. (VTTL2)	.773
Virtual teaching allows clearing my students' academic doubts during COVID-19. (VTTL3)	.746
`Digital Transformation create an overall online learning environment during COVID -19. (VTTL4)	.710
Virtual learning is enhancing my creativity and innovation in teaching-learning process during COVID -19. (VTTL5)	.745
Virtual learning is emerging as a replacement of conventional learning during COVID-19. (VTTL6)	.692
Virtual platforms are helping teachers in engaging the students during COVID -19. (VTTL7)	.666
Virtual learning encourages the online team activities and peer learning. (VTTL8)	.734
Privacy and security are concerns for me while providing online study materials. (VTTL9)	.572
Virtual platforms are lacking face to face interaction between students and teachers. (VTTL10)	.628

Table 2.Factor loading for Digital/Virtual Transformation & Teaching Learning Process
Source: The authors

Wellbeing

The self-developed scale of well-being is also checked for validity and reliability. Two items (elements) i.e. "I am doing well professionally during this pandemic." and "I will achieve what I want against all odds in spite of COVID-19." were removed due to high cross factor loading and low communalities value.

Now on the revised 12 items scale, exploratory factor analysis was again implemented to segregate items into appropriate factors. As per Table 3 below, the Kaiser – Meyer – Olkin (KMO) and Bartlett's test of sphericity have significant values of .851 and .000 respectively, which shows the appropriateness to use exploratory factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.851
Bartlett's Test of Sphericity	Approx. Chi-Square	2496.592
	Df	153
	Sig.	.000

Table 3. KMO and Bartlett's Test
Source: The authors

Workplace well-being and psychological well-being are segregated in the following table:

Factor 1		Factor 2	
Workplace Well-being (WW)		Psychological Well-being (PW)	
Items	Loading	Items	Loading
My job makes me happy during COVID-19. (WW1)	.839	In most cases I can trust on my colleagues. (PW1)	.720
My job inspires me during COVID-19. (WW2)	.830	I have good connect with my colleagues despite of social distancing. (PW2)	.677
I am experiencing joy in my work during COVID-19. (WW3)	.754	I feel safe and secure when I am physically around the people during COVID-19. (PW3)	.646
I am working with full efforts during COVID-19. (WW4)	.750	I am learning from my experiences during this pandemic. (PW4)	.587
I feel positive and full of energy at work during COVID-19. (WW5)	.730	I observed a connection between my work and the larger social good of my community, during COVID-19. (PW5)	.574
My spirit is energized by my work during COVID-19. (WW6)	.675		
Work never demands exceed my ability during COVID-19. (WW7)	.669		
Cronbach Value	.871	Cronbach Value	.728
Total Variance: 66.951			

Table 4: Factor loading for Wellbeing
Source: The authors.

According to Sharma and Behl (2020), Cronbach's value above 0.7 indicates the construct's reliability.

Research Model:

The research hypothesis have been tested using the following research model:

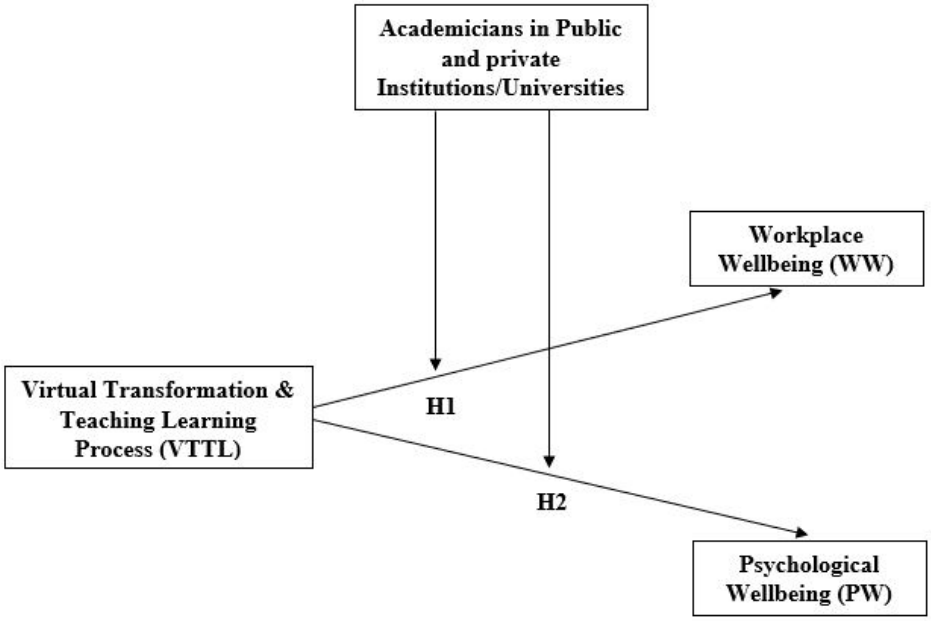

Figure 1. Research Model
Source: The authors

Model Evaluation Using PLS-SEM

To evaluate the above model of virtual transformation impact on academicians' well-being in public and private universities, PLS-SEM has been used. The three-stage approach consists of an assessment of the measurement model, an assessment of the structural model and Multi-Group Analysis (MGA) has been employed.

Assessment of the measurement model

The first stage confirms the acceptability of the measurement model for academicians of public and private universities. Here the latent variable's validity and reliability will be tested through convergent validity, discriminant validity, composite reliability and average variance extracted (AVE) (Chin, 2010; Hair et al., 2011).

The three constructs: Virtual Transformation and Teaching Learning Process (VTTL); Workplace Well-being (WW) and Psychological Well-being (PW) are used in the measurement model.

Latent variables and items	Loading		CR		AVE	
	Public	Private	Public	Private	Public	Private
Virtual Transformation and Teaching Learning Process (VTTL)			817	.854	.524	.512
VTTL1	.748	.612				
VTTL2	.783	.786				
VTTL3	.769	.707				
VTTL4	.694	.819				
VTTL5	.703	.707				
VTTL6	.610	.712				
VTTL7	.835	.805				
VTTL8	.721	.798				
VTTL9	.837	.831				
VTTL10	.876	.811				
Workplace Well-being (WW)			.895	.818	.792	.712
WW1	.862	.824				
WW2	.836	.834				
WW3	.767	.763				
WW4	.815	.765				
WW5	.810	.791				
WW6	.762	.728				
WW7	.847	.821				
Psychological Well-being (PW)			.874	.871	.604	.649
PW1	.665	.798				
PW2	.729	.747				
PW3	.735	.747				
PW4	.739	.714				
PW5	.793	.731				

Table 5. Assessment of the measurement model
Source: The authors

Here in table 5, the loading value of most of the latent variable indicators is more than 0.7. Generally, loading values higher than 0.6 are considered to be reliable and acceptable. CR and AVE values in the above table are also higher than 0.8 and 0.5 respectively. The CR coefficient value and AVE are required to be more than 0.7 and 0.5 respectively to have acceptability. AVE is used to identify convergent validity. So, by now, composite reliability and convergent validity are identified in the model.

Discriminant validity is used to indicate that each construct is independent to each other. To assess discriminant validity using Fornell – Larcker method, the square root of the AVE of each construct should be higher than all the correlations of the other constructs in the model. Here table 6 represents the acceptable discriminant validity.

Constructs	VTTL Public	WW Public	PW Public	VTTL Private	WW Private	PW Private
VTTL	.724			.716		
WW	.426	.890		.497	.844	
PW	.247	.352	.777	.269	.533	.806

Table 6. Discriminant Validity (Fornell- Larcker Criterion)
Source: The authors

Assessment of the Structural Model

The structural model for academicians of public and private universities has been evaluated in the second stage of analysis. In the structural model, to identify the model's explanatory power, the R2 of both the dependent (endogenous) constructs has been calculated. The R2 value of workplace well-being is .509 and psychological well-being is .378 for academicians of the public university. Whereas the R2 value of workplace well-being is .407 and psychological well-being is .490 for academicians of the private university. As per behavioral research, the acceptable R2 value should be equal to or more than .2 (Hair et al., 2021). Figure 2 represents the structural model including R2 values of academicians from public and private universities.

Multigroup Analysis (MGA)

After the successful assessment of the measurement and structural models, Multigroup analysis is implemented in the third stage to have the comparison between academicians of public and private universities. The MGA method of PLS-SEM is used to identify the difference between the path coefficients of the two groups. Measurement Invariance of Composites (MICOM) is one and the only prerequisite to implement MGA. MICOM is a combination of three steps namely, i) configural invariance measurement ii) compositional invariance measurement iii) measurement of equal means and variance. MICOM method is used to establish the partial measurement invariance of both groups. It is required before comparing and interpreting the MGA result for two groups (Henseler et al, 2016). Here in this research paper, two groups are of academicians from public and private Indian universities. We may compare the two groups using MGA only if at least the first two steps of MICOM are satisfied. MICOM is presented here in table 7.

Constructs	Configural Invariance (Same algorithm for both groups)	Composite Invariance (Correlation = 1)		Partial Measurement Invariance Established
		Correlation	Confidence Interval	
VTTL	Yes	.987	[.980, 1.000]	Yes
WW	Yes	.999	[.997, 1.000]	Yes
PW	Yes	1	[.999, 1.000]	Yes

Table 7. Result of Invariance Measurement Testing
Source: The authors

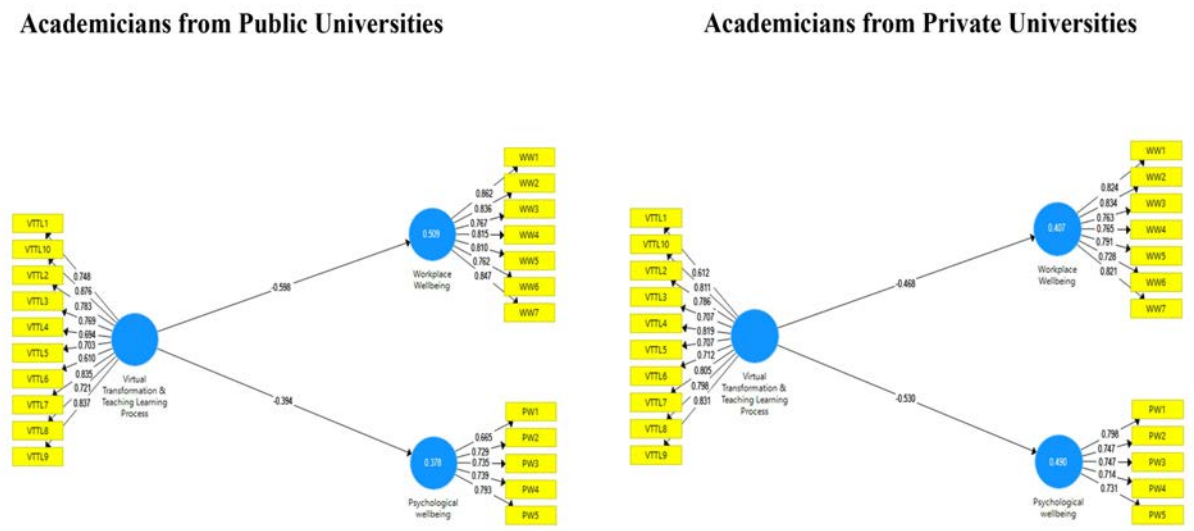

Figure 2: Result of Analysis for academicians from Public and Private Universities.
Source: The authors

MGA result using Henseler's MGA (Henseler et al., 2009) has been depicted in table 8. Table 8 also represents the result of hypothesis testing. This PLS-SEM technique is used to analyze the path coefficient differences among two groups. Bootstrap sample is used in Henseler's MGA method to compare group specific bootstrap estimates. This method uses the p value which is the difference between the path coefficient of two groups. The p value identifies the differences if it is either less than 0.05 or greater than 0.95.

Hypothesis	Relationships	Path Coefficient		Henseler's MGA	Supported
		Public	Private		
H1	VTTL -> WW	-.598	-.468	.001	Yes
H2	VTTL -> PW	-.394	-.530	.004	Yes

Table 8 Results of Hypothesis Testing
Source: The authors

Table 8 indicates the significant differences for the impact of virtual transformation on workplace wellbeing and psychological wellbeing among academicians of public and private universities. Although, coefficient values in figure 2 indicate the overall negative impact of virtual transformation on academicians' wellbeing but MGA further classify that this negative impact also has the differences on the wellbeing among academicians of public and private universities. Hence Both the hypothesis i.e., H1 and H2 are supported.

V. Discussion

Literature review suggested that digital transformation was essential for teaching learning process, but it also impacted negatively on the wellbeing of academicians. Here in this research, this negative association among the academicians of public and private universities were analyzed and compared.

Hypothesis one (H1) is accepted i.e., there is a significant difference for the impact of digital transformation on academician's workplace wellbeing in public and private universities. The overall negative coefficient values indicate the negative impact of digital transformation on academician's workplace wellbeing but when the coefficient values of academicians from public and private universities are compared, the significant difference were identified. The negative coefficient value of academicians from public university is greater than their counterpart. In other words, for workplace wellbeing, the academicians from public intuitions/universities are suffering more as compared to the academicians from private universities. There may have several reasons to it, but the prime reason is that virtualization during Covid-19 in public institutions was adopted quite late. In the initial phase there was a complete chaos about Covid-19 protocols. The immediate implementation of wide scale virtualization was a great challenge. Public universities are largely governed by education ministry where any approval for a change has a long bureaucratic process. Things were delayed due to lack of infrastructure and insufficient knowledge. All these challenges impacted on the academician's wellbeing in public universities (Watermeyer et al., 2021). Teachers in public universities were not experiencing joy and happiness in their job. At the same time private universities adopted technological change very quickly and efficiently. The teachers although faced troubles because of this sudden change but as mentioned above the impact was more on academicians in public universities (Gabster et al., 2020). The lack of technological training may also be a reason of poor well-being in public universities. The insufficient training process also detached academicians from their work and did not energize their spirit. The internet connectivity in far rural was another issue from where the maximum users of public universities are attending their classes. Eventually, when finally virtual environment was created in public universities, connectivity was a major destruction in academicians' knowledge delivery process. So virtual transformation severely impaired the workplace well-being of academicians from public universities.

Hypothesis two (H2) is also accepted i.e., there is a significant difference for the impact of digital transformation on academicians' psychological well-being in public and private universities. Here, the coefficient value of private institution academicians is higher in the negative side. This means that the psychological well-being of academicians from private universities is impacted the most as compared to public universities. Psychological well-being is also associated with the thought process of an individual. Academicians in private institutions were hard-pressed to create an effective online environment and to ensure an efficient teaching-learning process (Besser et al., 2020). Due to the lockdown, salary reduction and retracement in private universities created uncertainty regarding the future which impacted heavily on their psychological well-being (Mugizi et al., 2021). The implementation of the new normal where digitalization played an important role added fuel to it. Although social distancing and hard Covid-19 protocols created equal mental stress on all academicians, academicians from public universities were comparatively not in a fear of retrenchment or job loss. Work in private universities was more demanding and there were no defined working hours in the virtual environment. That disturbed the work-life balance and this kind of a work pressure further created anxiety among teachers in private universities (Rakhmanov et al. 2020).

VI. Conclusion

This research is identifying the difference on the impact of virtual transformation on academicians' well-being in public and private universities. To carry forward this research, two scales were used for collecting the data from 395 academicians. One scale is of virtual transformation and Teaching Learning process and another scale was for identifying the well-being of academicians. Both scales were tested for validity and reliability in the Indian context.

The MGA method of PLS-SEM is used to compare two groups which are academicians from public and private universities. Here it was found that there is a significant difference between academicians of public and private universities for the impact of virtual transformation on their well-being. Both workplace well-being and psychological well-being were negatively influenced by virtual transformation. It was found that for workplace well-being, public university academicians were impacted the most whereas for psychological well-being, academicians from private universities were affected more negatively. So in the end, we may conclude that during Covid-19, digital transformation played a vital role for the continuation of the teaching-learning process but that impacted heavily on the well-being of academicians. This negative impact also had significant differences based on the academician's university type (Public and Private).

a.Managerial Implication

It has been observed that virtual transformation is a boon for accelerating the teaching-learning process but at the same time, it is also the bane for the well-being of academicians during the pandemic. The prime challenge is to develop the appropriate skills in the academicians to efficiently handle the rapidly changing environment. A structured training programme is required to be organized to train academicians to use this power of technology for the benefit of students, society, and their own.

As digital transformation is the future of education (Govindarajan & Srivastava, 2020), so it is important for public and private universities to develop the curriculum by looking into the well-being and work-life balance of the academicians.

It seems that Covid-19 is going to stay for a long (Brillant et al., 2021), so the appropriate infrastructure is required to be developed by government agencies. Impactful teaching also enhances the psychological satisfaction of the academicians which eventually helps academicians to support their well-being. Yoga and meditation help to reduce stress and increase workplace well-being (Deshpande, 2012), so that should be a regular feature of teachers' daily routines.

Privacy and security should be paramount in education (Chui et al., 2020), no security breach and destruction should happen during the virtual knowledge delivery process. The appropriate investment in technology related to privacy and security is to be embedded in the system by the universities.

As per the result of this study, public universities should focus more on the workplace well-being of academicians whereas private universities should be more vigilant toward psychological well-being. Digital strategies should be framed in both universities by looking into these findings. In a way digitalization in education is a good opportunity. Its association with academicians' well-being may be enhanced through innovation and advancements in the teaching pedagogy.

b. Limitations and future research

The limitation of this research may be the sampling technique. Snowball sampling technique has been used for data collection which is not the best technique as the source of some of the

responses is not known. The responses have been gathered only from one country i.e., India. There may have variations in the result if data is gathered from different countries. In future research, the same study may be extended where the comparison of academicians' well-being of different countries can be done. Other demographic variables like age, gender, and personality may also be used for such comparison.

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Impacte de la transformació digital en el benestar dels acadèmics: un estudi amb el paper de moderador a universitats públiques i privades a l'Índia

Resum

Aquesta investigació identifica i compara l'impacte de la transformació digital en el benestar dels acadèmics en universitats índies públiques i privades. Per iniciar la investigació, es va identificar un constructe exogen anomenat "transformació virtual en l'educació superior" i dos constructes endògens anomenats "benestar al lloc de treball" i "benestar psicològic" dels acadèmics. Les dades es van recopilar de 395 enquestats segregades en acadèmics de 213 universitats índies públiques i 182 privades. Es desenvolupen hipòtesis de recerca per trobar la diferència significativa entre acadèmics d'universitats públiques i privades quant a l'impacte pel benestar en la transformació virtual. S'ha fet servir la tècnica d'anàlisi multigrup (MGA) de PLS-SEM per investigar-ne el resultat. S'ha revelat que, encara que l'associació general és negativa entre la transformació virtual i el benestar dels acadèmics, aquesta associació negativa també té una diferència significativa quan es compara entre universitats públiques i privades a l'Índia.

Paraules clau

Transformació Digital; Benestar dels Acadèmics; Universitat pública; Universitat privada; PLS-SEM.

Impacto de la transformación digital en el bienestar de los académicos: un estudio con el papel de moderador en universidades públicas y privadas en la India

Resumen

Esta investigación identifica y compara el impacto de la transformación digital en el bienestar de los académicos en universidades indias públicas y privadas. Para iniciar la investigación, se identificó un constructo exógeno llamado "transformación virtual en la educación superior" y dos constructos endógenos denominados "bienestar en el lugar de trabajo" y "bienestar psicológico" de los académicos. Los datos se recopilaron de 395 encuestados segregadas en académicos de 213 universidades indias públicas y 182 privadas. Se desarrollan hipótesis de investigación para encontrar la diferencia significativa entre académicos de universidades públicas y privadas en cuanto al impacto de la transformación virtual en su bienestar. Se ha utilizado la técnica de análisis multigrupo (MGA) de PLS-SEM para investigar el resultado. Se ha revelado que aunque la asociación general es negativa entre la transformación virtual y el bienestar de los académicos, esta asociación negativa también tiene una diferencia significativa cuando se compara entre universidades públicas y privadas en la India.

Palabras clave

Transformación Digital; Bienestar de los Académicos; Universidad pública; Universidad privada; PLS-SEM.

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