

Role of Digital Transformation and Its Impact on Employee Readiness for Technology Changes Through Measurement of 'Digital Prowess' During Online Mode of Working

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Abstract :

The global impact of the Covid-19 pandemic and the emergence of the civil rights movement through technologies like Chat-GPT has given a highly complexly woven social and technical fabric to dwell upon. The capacity to visualize the evolving relationship between technology and social frames in organizations through online mode of working has been the focus of the current research. In this research, the ways in which the digital prowess of employees can be measured and enhanced through the online mode of working mode of engagement of an employee with an organization has been explored. A quantitative method (SEM) has been applied in the current study to study the socio-technical factors that interplay for employee effectiveness during online mode of working. This study investigates the affordance of digital technologies through the construct of digital prowess for enhancing employee efficacy at work during the online mode of working mode of working. A research model has been developed based on the socio materiality theory and affordance theory as the theoretical background. The results show that the digital prowess constitutes three dimensions namely technical acumen, uncertainty management, and ability to collaborate. Specifically, this study provides an impetus to the role of digital transformations and its impact on employee readiness for technology changes for effectiveness at work through affordances theory which advocates that human-technology interactions can be harnessed for problem-solving capabilities if the employees are empowered with competencies like digital prowess and ways to nurture this balance of technology embedded in social interactions.

Keywords: Digital Prowess, sociomateriality, technology, employee readiness.

1.INTRODUCTION

The concept of the workplace is shifting from ideas of a physical location to a state of mind. Physical location of a working place has been gradually losing its importance due to growth of information technology. Modern working life adapted the system of work from home. Work from home referred as the concept of working in a concern where the employees do not have to commute to a central and single place of work. It is also called telecommuting and online mode of working work. The development in information and communication technologies has made it very easier to complete the tasks outside of the workplace because of good internet connectivity as well as reasonable price, more user-friendly computers, laptops and other similar gadgets. This made working from home easier as well as feasible to perform tasks and likely reduced the employer costs of providing such arrangement. The global impact of Covid-19 pandemic has given rise to the civil rights movement through technologies like ChatGPT, Generative AI etc that are becoming an integral part of our system of work , which are giving rise to a highly complex inter-woven social and technical fabrics of interconnect Ness , serving as a 'food for thought' to researchers to think ,explore and delve upon. The ways in which technology enablement has captured the working and the future possibilities emerging in organizations today are unfolding exponentially (Khatatbeh et.al,2023).One such profound transformation has been in the working patterns across various sectors through online mode of working working. The shift to online mode of working work has become a necessity for many organizations to ensure business continuity and the safety of their employees.

Online mode of working working as a new perspective of job design has been discussed in this research through the lens of socio-technical systems (Yang et.al, 2022). Most of the research in the past has focused on online mode of working and

its perceived impacts on employee satisfaction and productivity (Jalagat,2019). On the contrary, the current study has tried to explore the effectiveness of online mode of working from an employee's point of view through the lens of socio-technology enablement which draws its inception from the socio-technical theory (Kowalski, Slebarska, 2022). The research has adopted a quantitative research methodology. The study was quantitative in nature and includes a survey deployed on Information Technology (IT) companies in North India to explore the factors that impact digital prowess amongst employees during online mode of working mode of work (Wells et.al,2023).

The current study focuses on a comprehensive investigation of digital prowess, examining its various components and the interconnected ways in which they impact each other. The primary objective is to provide insights that can guide the development of strategies aimed at enhancing employee effectiveness during online mode of working mode of working. This involves organizational interventions that optimize socio-technical engagements, particularly in the context of online mode of working work. The study is specifically tailored to the IT sector, serving as a case study to explore and understand the dynamics of online mode of working, with the goal of informing strategies for maximizing productivity and success in the digital era.

2.LITERATURE REVIEW

Literature in the past has tried to study technology preparedness of employees at workplace through 'Digital Readiness' as a variable (Gfrerer,2021)which provides a major conceptual build up to the current research for analyzing digital skills or acumen that comprises of cognitive skills management, communication facilitators, technology literacy, sense-making abilities for digital changes, and digital crisis management (Reza et.al ,2018). This research aims to advance the understanding of change readiness in the digital age, with practical implications for digital transformation management particularly for online mode of working. A literature review was conducted to identify the variables that constitute human skills that ascertain technology enablement (socio-technical skills) which are cited as primary variables in the current study discussed in the below section.

Review of Emergent Constructs from Literature

The variables identified from review of literature originates:

- **Ability to Accommodate (AA):** The concept of "ability to accommodate" as an emergent variable is defined by several key components that collectively describe an individual's capacity to adjust, adapt, and work effectively in new and changing situations.The ability to accommodate includes a willingness and capability to adapt to new ideas (Tandogan and Kuday, Murat, 2021). The novel ideation for adjustments highlights the creative aspect of the ability to accommodate. The overall ability to accommodate is reflected in an individual's competence to work effectively in new and unfamiliar situations.
- **Uncertainty Management (UM):** The concept of "uncertainty management" as an emergent variable is defined by several key components that collectively constitute the variable namely risk-taking abilities, tolerate uncertainties and work in unknown areas.Individuals or organizations with a strong uncertainty management capability possess the ability to take calculated risks (Ao and Ong ,2023;Rosenberg,1996).Tolerance for uncertainties is a crucial aspect of uncertainty management. It reflects an individual's or an organization's ability to endure ambiguity and unpredictability without succumbing to stress or anxiety.
- **Ability to Collaborate(AC):** The concept of "ability collaborate" as an emergent variable is defined by several key components that collectively describe an individual's capacity to support one another ,enhance team productivity, complementation of skills in teams and social collaboration.
- **Technical Acumen(TA):** The concept of "technical acumen" as an emergent variable is defined by several key components that collectively describe an individual's capacity to develop technical know- how for which technical prob solving abilities are also important(Rodríguez et.al,2022). Providing technical assistance through technical advice and support from others in a team can also help develop technical acumen for self and others (Sastre,2022).
- **Digital Prowess (DP):** The emergent variable of "Digital Prowess" encompasses the ability to grasp technological procedural knowledge, work effectively in digital or virtual teams, engage in continuous digital expertise development, and possess a strategic acumen of digital technologies. Individuals with digital prowess are not only

technically skilled but also agile and adaptive in their approach to the rapidly evolving digital landscape. This concept recognizes the multifaceted nature of digital competence in today's technologically driven environment. This variable has been studied as a dependent variable and is novel to this study lacking any comprehensive work in the past as per the theoretical development of the concept.

These emergent variables/constructs were used for the development of the research instrument (as attached in Appendix 2) along with some control variables. These control variables, such as gender, age, academic profile, and work experience, are demographic or background factors that influenced respondents' responses. By including these variables, one can control for their effects and better understand the main variables (constructs) are associated with the outcomes.

2.1 Research Gap

From the literature review of the past studies conducted to explore the factors that accounted for work efficacy during the online mode of working mode of working they were mostly evaluating the conditions from extremes, either they were found to be structural in nature or social/relational on the other hand (like i.e., interpersonal trust and social isolation, work-life balance, self-efficacy, etc.) (Kurdy et.al, 2023; Carroll &Conboy,2020;Chin et.al,2003). However, there have been limited studies that have accounted for socio- technology enabled factors to measure the effectiveness of employees when working online mode of working (Mutsuddi & Sinha, 2022). Most of the studies delved or focused towards biased approach towards either social factors impacting technology readiness in online mode of working working or structural (technology), rather than enacting a balancing act between social-technology factors which the current study has tried to.

Another significant gap visible from past literature has been that most of the studies have been exploring online mode of working work efficiency from an employer’s perspective or a leader’s perspective of employee productivity lacking the understanding of the employee’s perspective towards socio-technical affordances for effectiveness at workplace during online mode of working work . ‘Socio-technical affordances’ refers to the opportunities and capabilities that arise from the interplay between social (human) and technical (technological) elements within a system or environment. The available literature demonstrates that there is a noticeable lack of comprehensive comprehension regarding the metric used to assess 'digital prowess' in the period following the pandemic for online mode of working engagement of work. Furthermore, an examination of prior scholarly works reveals that most research endeavors have leaned towards quantitative methodologies. These gaps in research (outlined in Table 1) have contributed to the formulation of the subsequent research inquiries, namely:

The following research questions have been addressed in the current study namely:

1. *What are the recognized barriers to participation in online mode of working through technology?*
2. *What is known about workplace social and technological factors for supporting online mode of working?*
3. *What are the implications of technology-enabled online mode of working for the well-being of employees and organization?*

Table 1: Research Gaps Identified from Literature Review

S. No.	Identifying the Research Gap(s)	Identifying the Research Question(s)
1	Clarity in the understanding of the factors influencing the Online Digital Prowess of employees as a productivity parameter in online mode of working and its impact on job performance.	RQ1. What are the various components or skills encompassed within the concept of 'Digital Prowess' that contribute significantly to online mode of working employee productivity.? RQ2. To explore the impact of Digital Prowess of employees on overall job performance?

Source: Authors

The current research investigates the technology efficacy of employees during online mode of working work engagements using socio-material arrangements influenced by the work of sociomateriality theory of Orlikowski (2010) and builds upon technology affordance theory, as discussed by Mora et al. (2021).

2.2 Research Objectives

Based on the above research questions the corresponding research objectives for the study related to the Digital Prowess of employees working online mode of working in IT consultancy firms are outlined as follows:

- **To explore the Constituents of Digital Prowess:** The first objective is to investigate the different elements or components that constitute an employee's Digital Prowess.
- **To understand factors influencing Digital Prowess:** The second objective focuses on identifying and understanding the factors that influence the Digital Prowess of employees this includes investigating both individual and contextual factors that play a role in enhancing or inhibiting employees' ability to navigate digital environments while working from home.
- **To study the impact of Antecedent Factors:** The third objective aims to study the impact of various antecedent factors on the Digital Prowess of employees during online mode of working work. These objectives collectively form the foundation for the research study. The study aims to address the research questions related to Digital Prowess and online mode of working work effectiveness.

In the research, the researcher has defined the context of digital prowess from the understanding of 'affordances' as a phenomenon that states that technology when enabled to action for resolving issues develops the capability of problem solving through the ways of 'affordances' that it interacts with its surroundings (Bobsin, Petrini, and Pozzebon, 2019). Research in the past has studied the efficacy of human control of technology through digital acumen, defined as constituting adaptability, ambiguity tolerance, teamwork & collaboration, and championing leadership (Mutsuddi and Sinha, 2022). This conceptualization finds its roots from Gibson's (1977) which explored the relationship between human (social) and the environment around it. Like for example human beings when using technology would utilize the environmental cues like knowledge, skills and experience that provide the trigger possibilities for the ways in which technology can be used as an enabler for action and interaction known as environmental affordances perspective to regulate material (technology) objects (Conole & Dyke, 2004). By following this logic, technological affordance further accentuates the work of Orlikowski, 2010, who stated that technology (material) and social, needs to be crafted in to "an ontology of separate things that need to be joined together" (p. 257). Technological affordance is not a static term but evolves with the interpretation of human-technology interventions considering "there is no social that is not also material, and no material that is not also social" (Orlikowski, 2007, p. 1473). Keeping sociomateriality and affordances as the theoretical framework for the current research the researcher addresses the discussions of the results of the study .

3. RESEARCH METHODS

Phase for Quantitative Collection of Data

The steps adopted in the data collection and analysis phase are as follows:

The research questionnaire was developed based on the variables as discussed and obtained in discussion of literature review . The data was collected data using a digital survey method, utilizing Google Forms as the platform for administering the questionnaire. To gather responses, a random sampling method was utilized. The participants were selected randomly from a list that contained coded information (likely to ensure privacy and anonymity) on employee emails. The sample consisted of 250 responses collected from employees holding operational positions in Consultancy firms located in the National Capital Region (NCR).

The cleaned data was then imported into SPSS (Statistical Package for the Social Sciences) Version 20 for statistical analysis. SPSS is commonly used for various types of statistical analyses. Additionally, AMOS (Analysis of Moment Structures) Version 20 was used for empirical model development.

3.2 Conceptual Model & Hypothesis Development

The conceptual model for the study has been described in Fig 1.

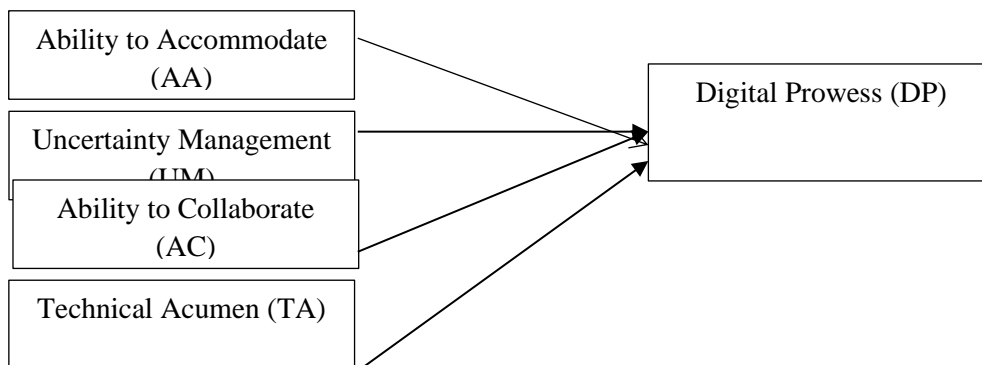


Fig 1: Conceptual Model (Source: Authors)

Basis the research gap and research questions identified from the review of literature (Table 3) and the conceptual model that emerged on basis of which hypothesis development was conducted as follows:

Table 3: Proposed Hypothesis (Source: Author)

Sl. No.	Research Question	Proposed Hypothesis
1	RQ1. What is the impact of individual and contextual factors on the effectiveness and productivity of online working among employees in IT consultancy firms located in North India?	H _{a1} : Ability to Accommodate (AA) has a role for influencing Digital Prowess (DP) of employees using online mode of working working.
		H _{a2} : Uncertainty Management (UM) has a role for influencing Digital Prowess (DP) of employees using online mode of working working.
		H _{a3} : Ability to Collaborate (AC) has a role for influencing Digital Prowess (DP) of employees using online mode of working working.
		H _{a4} : Technical Acumen (TA) has a role for influencing Digital Prowess (DP) employees using online mode of working working.

Respondent Profile: The demographic distribution and characteristics of the respondent sample based on the data analysis is as follows, out of the 230 respondents, 82% were males and 18% were females. Among the male respondents, 90% were in the age group of 21-25 years, and 10% were in the age group of 26-30 years. For female respondents, all of them belonged to the age group of 21-25 years. Among male respondents, all of them were Graduates. For female respondents, 95% were Graduates and 5% were Post Graduates. Among male respondents, 90% had work experience of 6-10 years, while 10% had 0-5 years of experience. For female respondents, all of them had work experience of 6-10 years.

Next, the reliability of the constructs used in the research was conducted using Cronbach’s Alpha scores. Cronbach's Alpha is a measure of internal consistency, indicating how closely related a set of items are as a group. An Alpha value above 0.8 is generally considered to reflect good reliability for a scale. Technical Acumen (TA) scored highest with mean score of 3.65, followed by Digital Prowess (DP), Ability to Accommodate (AA) and Leadership Acumen (LA), Uncertainty

Management (UM) having a scoring of means as of 3.58, 3.01 and 2.85 respectively. Ability to Collaborate (AC) had the minimum value for mean score of 2.25 (Table 4).

Table 4: Exhibit for Descriptive Statistics & Measuring Reliability estimates for the scale developed

Construct Name	Measures identified	Sample	Mean	Standard Deviation	Cronbach's Alpha
Technical Acumen (TA)	TA1, TA2, TA3, TA4, TA5	250	3.65	0.75	.878
Uncertainty Management (UM)	UM1, UM2, UM3, UM4, UM5	250	2.85	0.42	.813
Ability to Collaborate (AC)	AC1, AC2, AC3, AC4, AC5	250	2.25	0.49	.872
Ability to Accommodate (AA)	AA1, AA2, AA3, AA4, AA5	250	3.01	0.61	.881
Digital Prowess (DP)	DP1, DP2, DP3, DP4, DP5	250	3.58	.423	.861

Source: Authors

Next, steps were taken to ensure the suitability of the dataset for confirmatory factor analysis (CFA) by conducting collinearity analysis. Collinearity analysis helps to identify if there are high correlations between predictor variables, which can impact the results of CFA. As the tolerance values were above 0.2 and the Variation Inflation Factor (VIF) score was less than 5.0, it can be interpreted that the collinearity statistics were within the acceptable limits (Hair et al, 1995; Kline, 2011). This indicated that the data is free from the issues of multi-collinearity.

Exploratory Factor Analysis (EFA): Data were subsequently subjected to exploratory factor analysis (EFA) and the results showed that they had acceptable Kaiser-Meyer-Olkin Measure of Sampling Adequacy score of .880 with high levels of significance. The rotated component matrix from EFA showed that for the measure UM5 for the construct Uncertainty Management (UM) was dropped due to component coefficient scores being below 0.5 (Appendix 3).

Confirmatory Factor Analysis (CFA): The impact of the factors influencing Digital prowess (dependent variable), in order to analyze this for employees adopting online mode of working (addressed by RQ3), the data (after removal of measure UM5) was then exported to AMOS Ver 20 and a measurement model was developed in order to analyze the data. In order to evaluate the internal validity of the data, the standardized regression estimates and the correlation estimates were entered into Gaskin's Statistical Tool Package (Gaskin, and Lim, 2016; Gaskin, 2016) spreadsheet in order to compute the scores of average variances extracted (AVE) and maximum shared variance (MSV) (Table 5) depicting the estimates of convergent and discriminant validity estimates. Composite reliability (CR) which is used as a measure of internal consistency in the scale item also had desirable scores (Brunner & Süß, 2005, Netemeyer, et al 2003).

Table 5: Computation of Convergent & Discriminant Validity Estimates

	CR	AVE	MSV	MaxR(H)	UM	AA	TA	AC	DP
UM	0.815	0.525	0.287	0.818	0.724				
AA	0.886	0.608	0.287	0.892	0.536	0.780			
TA	0.886	0.612	0.207	0.900	0.360	0.429	0.782		
AC	0.874	0.587	0.310	0.917	0.493	0.380	0.455	0.766	
DP	0.860	0.563	0.310	0.906	0.415	0.284	0.364	0.557	0.751

Source: Author

Model fit analysis (Table 6) was conducted in order to estimate the indices of model fit. Table indicated that the scores for RMR (0.066), GFI (.80), CFI (.867), RMSEA (.079) were well within the acceptable ranges as indicated by prior authors like Byrne (1994); Byrne (2001); Hair, et al (1998).

Table 6: Model Fit Estimates during CFA (Source: AMOS Output)

Fit Indices	RMR	GFI	CFI	RMSEA	Normed λ^2 (CMIN/df)
Default Model (for CFA)	.066	.800	.867	.079	2.772
Default Model (1 st order)	.060	.874	.861	.090	2.816
Default Model (after Data Imputation)	.017	.990	.990	.078	2.374

Structural Equation Modelling (SEM): In order to explain the inter-relationships between the factors (independent variables, namely, ability to accommodate, uncertainty management, ability to collaborate, technical acumen) and their impact on dependent variable, namely digital prowess, the next step was the development of the measurement model.

Hypothesis Testing: The estimates of regression that evolved from the output of AMOS were then applied for hypothesis testing. Table 7 indicates that out of all the independent variables, only Ability to Collaborate (Std β = .426; $P < 0.05$; H_{a3} has been accepted) had significant influence on the Digital Prowess (DP) of employees using online mode of working. The rest of the hypotheses which were H_{a1} , H_{a2} & H_{a4} were rejected as the independent variables namely ability to accommodate, uncertainty management and technical acumen had not much significant implications on digital prowess.

Table 7: Regression Estimates of Measurement Model (SEM)

	Estimate	Std β	S.E.	C.R.	P	Inference
DP <--- AA	-.035	-.022	.134	-.262	.793	$P > 0.05$; H_{a1} is rejected
DP <--- TA	.143	.116	.094	1.524	.128	$P > 0.05$; H_{a4} is rejected
DP <--- AC	.818	.426	.168	4.879	***	$P < 0.05$; H_{a3} is accepted
DP <--- UM	.369	.175	.191	1.929	.054	$P > 0.05$; H_{a2} is rejected

Source: AMOS Output

As all the independent and dependent variables had significant co-variances with one another, the first order measurement model was developed as the next step of structural equation modelling (SEM) as seen in Fig 2.

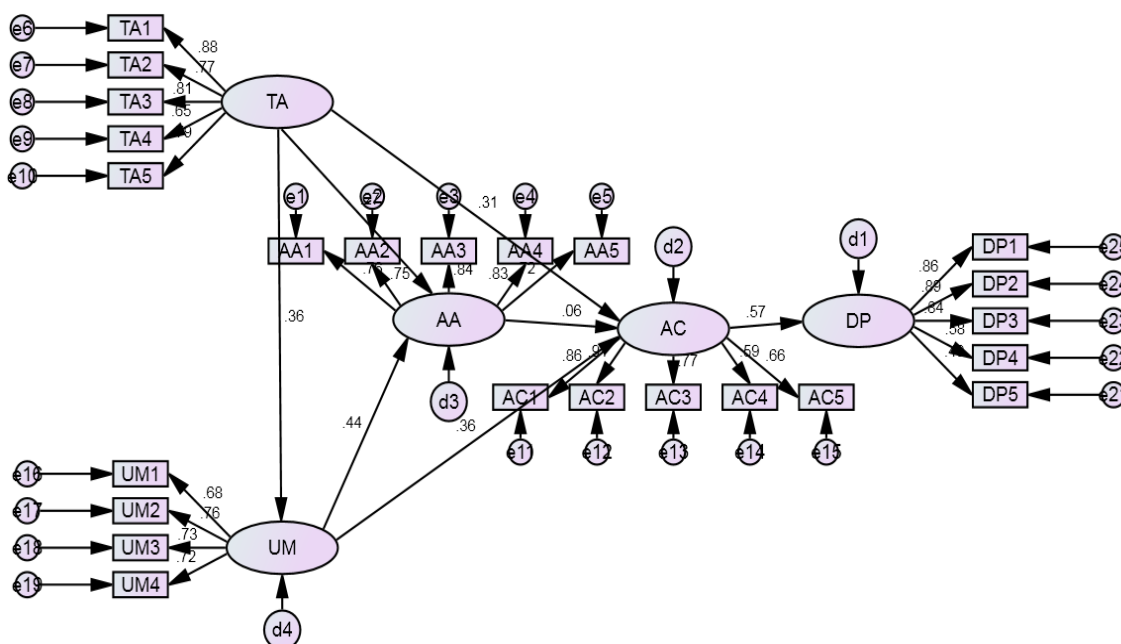


Fig 2: First Order Measurement Model (Source: AMOS Output)

Table 8: Regression estimates for the First Order Model (Source: AMOS Output)

	Estimate	Std β	S.E.	C.R.	P	Inference
UM <--- TA	.210	.360	.047	4.503	***	$P < 0.05$, Significant Relation
AA <--- UM	.514	.439	.097	5.289	***	$P < 0.05$, Significant Relation
AA <--- TA	.184	.270	.050	3.708	***	$P < 0.05$, Significant Relation
AC <--- TA	.200	.309	.050	4.010	***	$P < 0.05$, Significant Relation
AC <--- AA	.060	.063	.079	.758	.449	$P > 0.05$, No Significant Relation
AC <--- UM	.405	.363	.102	3.986	***	$P < 0.05$, Significant Relation
DP <--- AC	1.079	.568	.150	7.177	***	$P < 0.05$, Significant Relation

The regression estimates of the first order measurement model (Table 8) indicated that, the independent variable ability to accommodate (AA) had no significant relationship (Std $\beta = 0.063$; $P > 0.05$) with ability to collaborate (AC) the only factor influencing digital prowess (DP) of the respondents. Since ability to accommodate (AA) did not have any direct relationship with digital prowess as established in the previous stage of the SEM (Table 8) – although the factors Technical Acumen (TA) and Uncertainty Management (UM) had significant relationships with ability to accommodate (AA), the contribution of ability to accommodate towards digital prowess remained unexplained for which the construct was dropped from the subsequent stage of the model refinement.

Development of Modified First Order Measurement Model: Due to the dropping of the independent variable ability to accommodate (AA), the emerging measurement model was subsequently presented with ability to collaborate (AC) being the mediating factor between technical acumen (TA) and uncertainty management (UM) in one side and digital prowess (DP) at the other as seen in Fig 3.

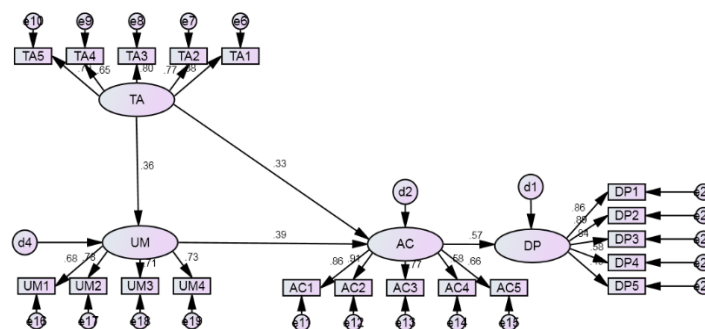


Fig 3: Modified First Order Measurement Model after dropping of the Independent Variable Ability to Accommodate (Source: AMOS Output)

Data Imputation and Presentation of the Empirically Tested Model: As the regression data obtained from the modified first order measurement model were satisfactory establishing the mediating role of ability to collaborate (AC) on digital prowess – the data set was further imputed using AMOS 20 and presented in the following figure (Fig 4).

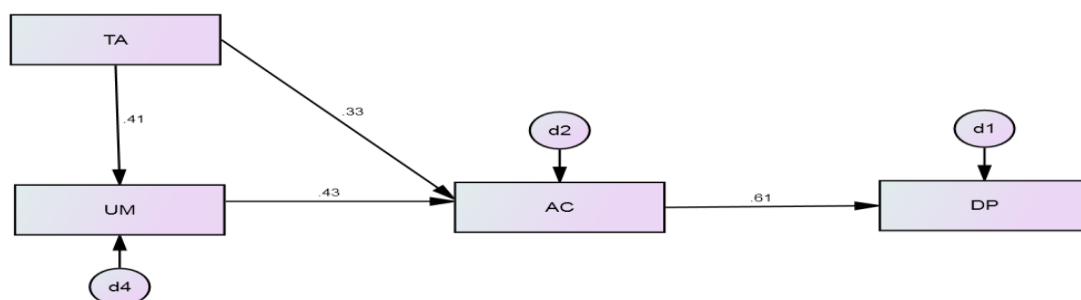


Fig 4: Empirically Tested Model (Source: AMOS Output)

Estimates of Model fit (Table 6) for the empirically tested model indicated that the scores for RMR (.017), GFI (.990), CFI (.990), RMSEA (.028) were well within the acceptable ranges (Byrne 1994; Byrne, 2001;Hair, et al 1998).Regression estimates (Table 9) for the indicated that ability to collaborate (AC) emerged as the mediating factor between technical acumen (TA) (Std β =.329; $P<0.05$) and digital prowess (DP) (Std β =.613; $P<0.05$). It also acted as the mediating factor between uncertainty management (UM) (Std β =.431; $P<0.05$) and digital prowess (DP) (Std β =.613; $P<0.05$). As technical acumen had a significant relation with uncertainty management (Std β =.407; $P<0.05$) – its indirect influence on ability to collaborate through uncertainty management (UM) is also established.

Table 9: Regression Estimates for the Empirically Tested Model

	Estimate	Std β	S.E.	C.R.	P
UM <--- TA	.230	.407	.034	6.674	***
AC <--- TA	.214	.329	.037	5.853	***
AC <--- UM	.497	.431	.065	7.671	***
DP <--- AC	1.165	.613	.100	11.602	***

(Source: AMOS Output)

4. DISCUSSIONS

4.1 Exploration of Research Questions

The following variables were addressed in the analysis and its interpretation has been accounted below:

Role of Ability to Collaborate on Digital Prowess: The model (Fig 4) which was developed in the research clearly indicates that Ability to Collaborate(AC) had significant impact on (Std β = .613, $P<0.05$) Digital Prowess (DP) of the respondents. The independent factor,Ability to Collaborate (AC)which emerged as a mediating factor influencing the impacts of Technical Acumen (TA) (Std β = .329, $P<0.05$) and Uncertainty Management (UM) (Std β = .431, $P<0.05$) on the Digital Prowess (DP) of employees was a significant finding.

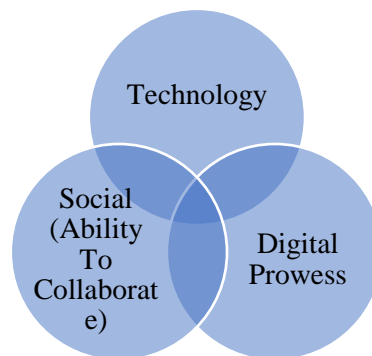


Fig 6: Affordances Theory in context of current study(Source Authors)

Role of Uncertainty Management as a mediating factor: The study also reveals that the variable Uncertainty Management(UM) acted as an important mediating factor between Technical Acumen (TA) and Ability to Collaborate (AC). Technical Acumen (TA)had significant relationship (Std β = .407, $P<0.05$) with Uncertainty Management (UM), the later further influenced (Std β = .431, $P<0.05$) Ability to Collaborate (AC) thereby establishing the chain of influence on Digital Prowess (DP).In summary, the findings suggest that the use of digital technologies has a positive impact on various aspects of work, including coordination, information management, and handling uncertainty (Chen and Tian ,2022; Adomako and Nguyen, 2022). The cited studies and findings emphasize the role of digital tools in enhancing collaboration, providing relevant information, and assisting with decision-making in uncertain situations(Frost & Duan 2020; Chen, 2018; Jones,2018).

Role of ability to accommodate: The role of the factor Ability to Accommodate (AA) on Digital Prowess (DP) had been negated during the initial phases of SEM. The lack of significant relationship of Ability to Accommodate (AA) with Digital Prowess (DP) (Std $\beta = -.022$, $P > 0.05$) and that with Ability to Collaborate (AC) (Std $\beta = .063$, $P > 0.05$) led to this decision.

In conclusion, the study investigates the components of Digital Prowess (DP) and their influence on employee effectiveness during online mode of working work. The analysis highlights three key dimensions—technical acumen, uncertainty management, and the ability to collaborate—as critical factors that impact Digital Prowess (DP) and, consequently, employee effectiveness in an online mode of working work environment.

5 . IMPLICATIONS OF THE STUDY

The study has contributions pertaining to the theoretical, methodological, practitioner and managerial implications in terms of the overall research design and findings which could help provide a guiding reference for academia and industry practitioners to develop an understanding of digital prowess while online mode of working mode of working especially in times when industries have moved to innovative and cost-effective ways of operationalizing their work dynamics (Sokolich, 2022). From the academic perspective, the study has helped to bridge the gap between existing literature on the digital prowess of employees which was a novel variable that emerged through qualitative analysis, which enables a way by which the digital efficacy of employees at the workplace can be measured and improved. Furthermore, the empirical model presented in the study established a relationship between the digital prowess of employees using online mode of working work mode of operations and the antecedent factors that interplay for digital efficacy. From the practitioner perspective the study's findings can serve as a valuable guide for managers seeking to improve their technology transfer performance (Botchie et al., 2022; Hayter et al., 2020). By understanding the dynamics of business process digitalization and its relationship with technology transfer intensity, managers can make informed decisions to enhance their organization's effectiveness in adopting and integrating new technologies (Iyanna et al., 2022; Zahoor et al., 2023).

Furthermore, the inclusion of digital skills as a crucial component in Key Performance Indicators (KPIs) for human resources professionals represents a strategic move toward recognizing and cultivating the digital prowess of employees. This approach aligns with the evolving demands of the modern workplace, where digital literacy and proficiency are increasingly essential. By incorporating digital skills as a measure in KPIs, human resources professionals can assess and evaluate employees based on their digital prowess. This goes beyond traditional performance metrics and acknowledges the significance of technological competence in today's work environment.

6. LIMITATIONS AND SCOPE OF THE STUDY

The study has been limited to the sector of information and technology in North India which could have been further substantiated through a Pan India study to explain demographic divides as an important control variable to assess the results. The findings of the study hold significant relevance for countries that share similar cultural contexts. These countries are likely to have comparable work environments, practices, and technological landscapes. As a result, the insights gained from the research can offer valuable guidance and understanding to such nations, aiding them in addressing similar challenges and opportunities related to online mode of working work and digital prowess. A longitudinal design to further gain insights into digital prowess as a construct considering control variables like age and gender could also further add to the richness of the results. Also, this study has not considered the impact of job characteristics and their impact on digital prowess. Job roles and responsibilities vary widely across different domains and industries, and these unique characteristics can significantly influence how digital technologies are utilized to enhance job performance.

7. CONCLUSION

The current research has tried to measure the affordance of digital technologies through the construct of digital prowess for enhancing employee efficacy at work during the online mode of working mode of working (Fan, and Moen, 2023; 2022.) Practically, this research provides a very timely insight to measure the need for technology / digital prowess as a competency that needs to be evaluated for effective employee performance in today's times of hybrid mode of working. This leads to a better understanding of digital prowess and its role in designing and transforming existing working practices and training competencies using digital prowess and its antecedents. Such understanding is significant for organizations

that are in pursuit of defining newer ways of functioning by using digital readiness measures among employees, post-COVID-19.

Specifically, this study provides an impetus to the role of digital transformations and its impact on employee readiness for technology changes for effectiveness at work through affordances theory which advocates that human-technology interactions can be harnessed for problem-solving capabilities if the employees are empowered with competencies like digital prowess (Cetindamar and Abedin ,2021).

The technological competencies described as digital prowess in the current study would vary depending on the organizations and their scope of organizational structuring, functions, roles, and employee competencies. The unevenness and inconsistencies in the technical competency's framework may vary not just organizational-wise but also at the department and individual levels.

Ultimately, this approach acknowledges that digital prowess is not solely about individual skills; it is about creating an ecosystem that fosters awareness, enables access, and supports the practical application of socio-technology capabilities liketechnical acumen, uncertainty management, and the ability to collaborate. Understanding how to make these changes through human resources practices and policies is instrumental in ensuring that the advantages of technology are fully realized by online mode of working workers, leading to improved performance and overall organizational success.

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