A STUDY ON THE PRODUCTIVITY OF IT WORKFORCE DUE TO HYBRID WORK MODEL

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Abstract

The study's purpose is to determine typical working conditions of IT professionals. We took into account pertinent hypotheses while conducting the study. The hybrid working paradigm is a combination of WFH and WFO arrangements. The effects of the hybrid work paradigm on collaboration, HR management, employee well-being, productivity, and efficiency were investigated. An increasing number of individuals are engaging in mixed employment arrangements, as validated by analytical methodologies. In this study, we surveyed 137 middle-level workers on their experiences with the hybrid work paradigm via the use of a questionnaire. The statistical tools of percentage analysis, one-way analysis of variance, multiple regression analysis, cross tabulation, and correlation analysis were used in this study. The data indicate that the Hybrid Work Model is preferred by the majority of workers. Current operations are not disrupted throughout the modeling phase. There is also a lesson to be gained about being flexible and creative when working in a certain environment. To put the long term of work first, the hybrid workplace model must be implemented immediately. It seems that the hybrid workplace model will become the norm in the near future.

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1. INTRODUCTION

As hybrid work models have become more common, many companies have adjusted their tactics for optimizing the productivity of their IT departments. The notion of today's IT workforce productivity is primarily focused on comprehension, using a mix of old and contemporary means of employment, while in the past productivity depended mainly on traditional employment models and face-to-face contacts.

In a hybrid type of employment, some employees go into the office every day while others work from home. New lines of communication, better customer service, and higher levels of customer satisfaction are all possible as a result of allowing remote work with technology-enabled collaboration. The flexibility it provides allows workers to do their jobs in ways that best suit their bodies and their minds, which in turn lowers their daily stress levels.

The advantages of the hybrid work paradigm can only be fully realized if the IT department is equipped with the best possible strategies, tools, and procedures. With the proper IT infrastructure in place, IT teams and other employees may access business systems from any location, making remote working and collaboration a viable option. As a result, IT departments may benefit from a streamlined process that promotes teamwork and the effective completion of tasks. Online and SaaS (Software as a Service) Services like Slack and Zoom that allow for remote teamwork have opened up new channels of communication and professional networking.

Organizations should also think about how they measure and reward IT team performance. The measures need to take into account the fact that some workers are not physically present in the office, as well as any additional flexible working arrangements they might need. Also, IT teams must use performance analytics tools and metrics to measure progress against present goals and identify improvement areas.

IT departments are finding that the hybrid work model is a productive arrangement because it gives them the freedom and resourcethey need to boost IT staff efficiency. To ensure success, organizations need to understand the specific needs of their IT teams and implement an IT strategy that supports them. By ensuring the right technology and strategies are in place, organizations can capitalize on the full potential of their IT team, leading to improved customer service, increased customer satisfaction, and sustained success.

REVIEW OF LITERATURE

(Bloom et al., 2015; Stanford University, 2017)

Productivity and Remote Work: Remote work, which is a key component of hybrid work models, has been the subject of extensive research about productivity. Studies have demonstrated that remote work increases productivity in a number of ways, including reducing travel time, increasing flexibility, and improving work-life balance. IT workers, for instance, may benefit from remote work since it enables them to work from home, where they can choose their own hours and have less distractions.

(Daskalaki et al., 2019)

Technology and Hybrid Work Model: Technology plays a critical role in enabling and supporting hybrid work models. IT professionals heavily rely on technology to perform their tasks and collaborate with team members. Studies have emphasized the importance of technology infrastructure, tools, and training for maintaining increase in output in a mixed office setting. Access to a reliable internet connection, appropriate hardware and software, and training on remote work tools are critical for IT professionals to effectively work in a hybrid environment. Moreover, technological solutions such as communication and collaboration tools, project management software, and virtual meeting platforms have become essential in facilitating remote work and maintaining productivity in a hybrid work model.

(Grant et al., 2019)

Efficiency in a Hybrid Work Environment: Measuring Productivity model can be challenging due to the complex nature of work arrangements and the subjective nature of productivity. Various methods and metrics have been proposed to measure productivity in remote and hybrid work models, such as objective performance metrics, self-report measures, and manager evaluations. However, there is no consensus on the best approach, and further research is needed to develop robust and valid measures of productivity in the context of hybrid work models.

(Allen et al., 2015; Green et al., 2016)

Successful remote teams have high rates of productivity because of their ability to communicate and work together effectively. Researchers Allen et al. (2015) showed that working remotely may improve teamwork and communication, both of which boost output. Remote work, as noted by Green et al. (2016), may boost output since it allows for more cross-locational communication and cooperation. (The study by Allen et al. appeared in the Journal of Applied Psychology; the study by Green et al. appeared in the International Journal of Human Resource Management.)

(Kossek & Lautsch, 2018; Baumeister & Kuehnel, 2019)

Inspiration and Commitment in the Workplace
Motivating and engaging workers is essential for maximizing output in virtual workplaces. Kossek and Lautsch (2018) found that employees who have

the option to work from home report higher levels of job satisfaction and motivation. Workers who have greater control over their time and duties tend to be happier and more productive on the job, as shown by the research of Baumeister and Kuehnel (2019). (Kossek and Lautsch's study published in the Academy of Management Annals, while Baumeister and Kuehnel's appeared in the Journal of Business and Psychology.)

(Moen et al., 2016; Vander Elst et al., 2018) Improvements in work-life balance due to remote employment have been linked to higher output. Remote work, as proposed by Moen et al. (2016), may provide workers more freedom and say over their schedules, which can boost morale and productivity. Work-life balance is enhanced by reduced travel time and more flexibility thanks to remote work, as noted by Vander Elst et al. (2018). Both studies were published in academic journals (Moen et al. in the Journal of Vocational Behavior and Vander Elst et al. to be published in the International Journal of Human Resource Management).

(Beltagui & Candi, 2020; Kim et al., 2021) Workplace innovation and creativity may flourish under a hybrid type of employment. According to research by Beltagui and Candi (2020), hybrid work models boost innovation and creativity by encouraging people to share and use their expertise. Similarly, Kim et al. (2021) argued that workers benefit from hybrid work models since they expose them to new situations and ideas.

(Chung & Shin, 2020; Matusik & Hill, 2019) The success of hybrid work arrangements is heavily dependent on the nature of the company's culture. Chung and Shin (2020) discovered that the success of hybrid work models depends on an organization's culture that values trust, communication, and flexibility. According to Matusik and Hill (2019), a hybrid work model's potential to boost employee well-being and productivity hinges on the presence of an inclusive and supportive company culture.

(LaPlume et al., 2021; Vander Elst et al., 2018) There may be beneficial impacts of hybrid work arrangements on both physical and mental health. Hybrid work arrangements, according to research by LaPlume et al. (2021), help workers avoid burnout and stress, which is good for their physical and mental health. Hybrid work models, as proposed by Vander Elst et al. (2018), may also encourage more exercise and less sitting, both of which are beneficial to health.

(Marshall et al., 2020; Noonan et al., 2021) The viability of hybrid work arrangements depends heavily on technological advancements. Video conferencing and project management software are two examples of technological tools that Marshall et al. (2020) discovered to improve communication and cooperation in hybrid work arrangements. Work-life balance may be improved by the use of hybrid work models, as suggested by Noonan et al. (2021). The key to successfully implementing hybrid work models via the use of technology, however, is equipping employees with the necessary skills and resources.

OBJECTIVES OF THE STUDY

Primary objective:

A study on the productivity of IT workforce due to hybrid work model.

Secondary objective:

1. Analyzing the level of employee engagement and motivation in the hybrid work model.
2. Assessing the employee's efficiency and effectiveness in the hybrid work model.
3. Measuring the satisfaction level of employee with the hybrid work model.

LIMITATIONS OF THE STUDY

The limitations of this study include the following:

- The research is set to be conducted with a limited sample size, which might not be representative of the whole IT sector.
- The study will be confined to the participants' impressions and opinions.
- The research will not look at the influence of the hybrid work paradigm on the organization's financial performance.

2. RESEARCH METHODOLOGY

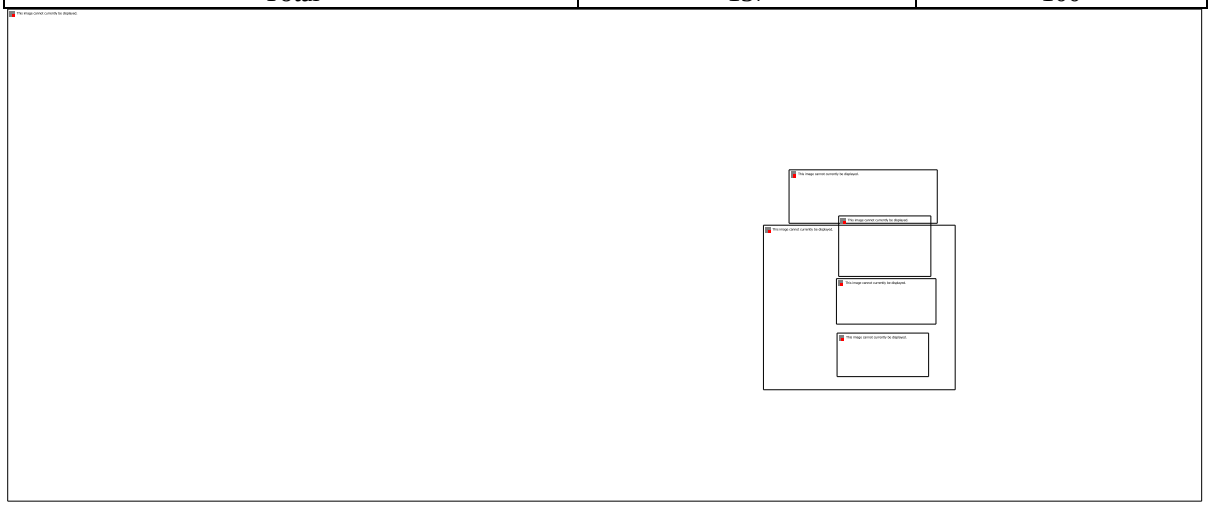
This study's research approach is a quantitative methods research design. This approach enables the collection and interpretation of numerical information, making descriptive and inferential statistics possible. The data collection process will involve the use of primary and secondary sources. The primary data will be collected via distributing a questionnaire, which will allow the researchers to gather specific information directly from the participants. The secondary data will be gathered from various sources such as the internet, books, and government updates to official websites, providing additional background information and context for the study. The convenience sampling approach will be used, which entails selecting individuals based on their accessibility and desire to participate. The sample size for this research will consist of 137 individuals. To analyze the collected data, various statistical tools will be utilized, including percentage analysis, One-Way ANOVA, multiple regression analysis, cross-tabulation, and correlation analysis. These analytical techniques will help to examine relationships, patterns, and significant differences among the variables under investigation.

3. DATA ANALYSIS AND RESULTS:

I. PERCENTAGE ANALYSIS:

Q2. Age

Particular	Respondents	Percentage
18-30	25	18.2
31-40	20	14.6
41-50	56	40.9
51-65	36	26.3
Total	137	100

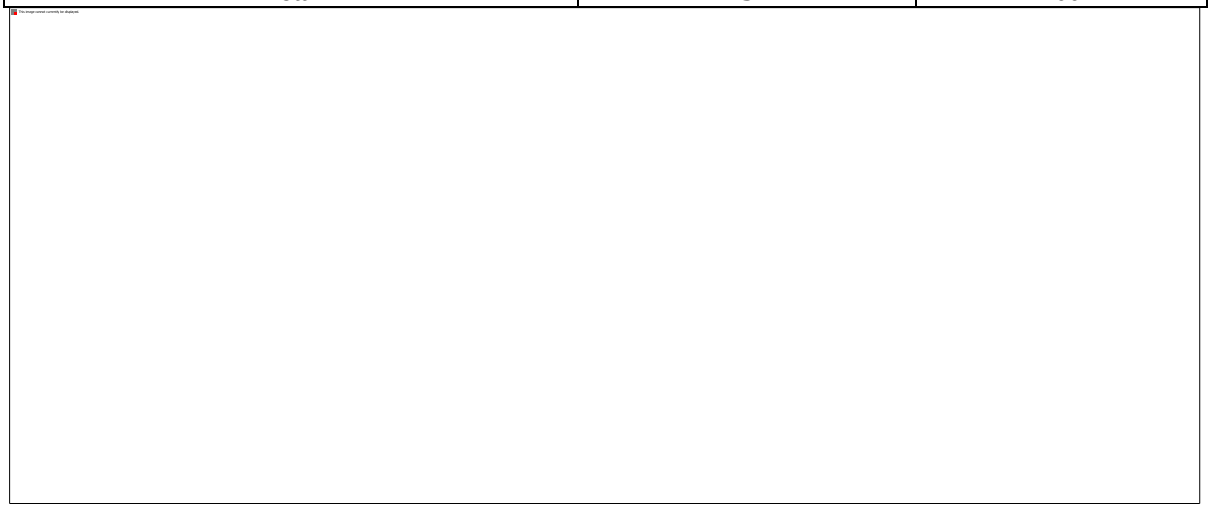


INTERPRETATION:

As per the above analysis, The majority of respondents (40.9%) are between the ages of 41-50, 18.2% are between the ages of 18-30, 14.6% are between the ages of 31-40, and 26.3% are between the ages of 51-65.

Q3. Gender

Particular	Respondents	Percentage
Male	63	46
Female	72	52.6
Other	2	1.5
Total	137	100



INTERPRETATION:

According to the result, the majority of the responses 52.6% are Female, 46% are Male and 1.5% are others.

II. CORRELATIONS ANALYSIS

AIM:

The aim of this analysis is to investigate the relationship between the perceived increase in productivity due to the hybrid work model and overall satisfaction with the hybrid work model among the IT workforce.

TABLE:

Correlations

		How much has hybrid work increased your productivity?	How satisfied are you with your overall hybrid work model?
How much has hybrid work increased your productivity?	Pearson Correlation	1	.820**
	Sig. (2-tailed)		.000
	N	137	137
How satisfied are you with your overall hybrid work model?	Pearson Correlation	.820**	1
	Sig. (2-tailed)	.000	
	N	137	137

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

INTERPRETATION:

According to the preceding table, the significant P value is 0.001, which is less than 0.05 for all questions. The matrix shows that there are strong positive correlations between these two variables. The implementation of the hybrid work model has a positive impact on productivity and is associated with higher levels of satisfaction among IT professionals.

As a result, the Null hypothesis (H0) is rejected and the Alternate hypothesis (H1) is accepted.

III. ONE-WAY ANOVA

AIM:

One-way ANOVA test is executed to find the difference among age and the different variables (level of communication, engagement, team collaboration/teamwork, motivation towards job, recognition, and appreciation, and the parameters that motivate employees) in the hybrid work model.

TEST HYPOTHESIS:

Null hypothesis (H0): There is no statistically significant relationship among the perceived increase in productivity and overall satisfaction with the hybrid work model.

Alternate hypothesis (H1): There is a statistically significant relationship among the perceived increase in productivity and overall satisfaction with the hybrid work model.

HYPOTHESIS:

Null hypothesis (H0): There is no statistically significant difference among age and different variables (level of communication, engagement, team collaboration/teamwork, motivation towards job, recognition, and appreciation, and the parameters that motivate employees) in the hybrid work model.

Alternate hypothesis (H1): There is a statistically significant difference among age and different variables (level of communication, engagement, team collaboration/teamwork, motivation towards job, recognition, and appreciation, and the parameters that motivate employees) in the hybrid work model.

TABLE:

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
How often do you communicate with your colleagues or supervisor while working remotely?	Between Groups	84.868	3	28.289	33.923	.000
	Within Groups	110.913	133	.834		
	Total	195.781	136			
How engaged are you in your work while operating in the hybrid work model?	Between Groups	99.829	3	33.276	36.731	.000
	Within Groups	120.492	133	.906		
	Total	220.321	136			
	Between Groups	110.576	3	36.859	33.832	.000

How would you rate your team's level of collaboration and teamwork since transitioning to the hybrid work model?	Within Groups	144.898	133	1.089		
	Total	255.474	136			
How motivated are you to perform your job effectively while working in a hybrid work model?	Between Groups	129.264	3	43.088	43.345	.000
	Within Groups	132.211	133	.994		
	Total	261.474	136			
How would you rate the level of recognition and appreciation you receive from your colleagues or supervisor while working remotely?	Between Groups	137.279	3	45.760	46.381	.000
	Within Groups	131.218	133	.987		
	Total	268.496	136			
Rate the parameters that motivates you. [Health security]	Between Groups	176.376	3	58.792	43.518	.000
	Within Groups	179.682	133	1.351		
	Total	356.058	136			
Rate the parameters that motivates you. [Rewards and recognition]	Between Groups	63.270	3	21.090	19.535	.000
	Within Groups	143.591	133	1.080		
	Total	206.861	136			
Rate the parameters that motivates you. [Fair treatment and compensation]	Between Groups	114.541	3	38.180	26.600	.000
	Within Groups	190.904	133	1.435		
	Total	305.445	136			
Rate the parameters that motivates you. [Welfare and recreational facilities]	Between Groups	89.173	3	29.724	32.838	.000
	Within Groups	120.389	133	.905		
	Total	209.562	136			

INTERPRETATION:

It is observed from the above table, the significant P value is found to be <0.001 it is lesser than 0.05 for all the questions. Therefore, it is interpreted that there is a statistically significant difference between age and the different variables (communication level, engagement, team collaboration/teamwork, motivation towards job, recognition, and appreciation, and the parameters that motivate employees) in the hybrid work model.

As a result, the Null hypothesis (H0) is rejected and the Alternate hypothesis (H1) is accepted.

IV. MULTIPLE REGRESSION ANALYSIS AND CROSS TABULATION

AIM:

To examine the relationship between gender and remote work factors.

TEST HYPOTHESIS:

Null hypothesis (H0): There is no statistically significant association between gender and work factors.

Alternate hypothesis (H1): There is a statistically significant association between gender and work factors.

TABLE:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.779	.161		11.071	.000
	How would you rate your ability to manage your time effectively while working remotely?	.069	.066	.178	1.054	.294

	How much has hybrid work increased your productivity?	-.041	.083	-.102	-.497	.620
	How well do you feel your employer has provided the necessary resources and support to ensure a successful transition to hybrid work?	.102	.081	.269	1.263	.209
	Do you feel your work is recognized and valued while working remotely?	-.119	.070	-.318	-1.692	.093
	How well do you feel you can manage your workload and responsibilities while working remotely?	.042	.076	.111	.554	.581
	Have you faced any challenges in meeting project deadlines while working remotely?	-.126	.064	-.192	-1.977	.049

a. Dependent Variable: Gender

Gender * Have you faced any challenges in meeting project deadlines while working remotely? Crosstabulation

Count

		Have you faced any challenges in meeting project deadlines while working remotely?			
		Yes, frequently	Yes, occasionally	No, never	Total
Gender	Male	7	13	40	60
	Female	20	14	41	75
	Others	0	0	2	2
Total		27	27	83	137

INTERPRETATION:

The table displays the results of a multiple regression analysis using gender as the dependent variable and six independent factors linked to remote work. The significant P value is found to be <0.001 it is lesser than 0.05 for the first five questions. There is no significant relationships were found between gender and the first five remote work factors.

As a result, we accept the Null hypothesis (H0) while rejecting the Alternate hypothesis (H1).

But specifically for the last question, the analysis revealed that facing challenges in meeting project deadlines while working remotely was negatively related to gender, suggesting that women may encounter more difficulties in meeting project deadlines while working remotely.

As a result, the Null hypothesis (H0) is rejected and the Alternate hypothesis (H1) is accepted.

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TABLE:

III. CORRELATION ANALYSIS

AIM:

To investigate the relationships between satisfaction with different aspects of hybrid work and overall hybrid work satisfaction.

TEST HYPOTHESIS:

Null hypothesis (H0): There are no major links between satisfaction with flexibility, technology and tools, opportunities for career growth and professional development, and overall hybrid work satisfaction.

Alternate hypothesis (H1): There are major links between satisfaction with flexibility, technology and tools, opportunities for career growth and professional development, and overall hybrid work satisfaction

Correlations

		How satisfied are you with the flexibility of the hybrid work model?	How satisfied are you with the technology and tools provided to you for remote work?	How satisfied are you with your opportunities for career growth and professional development while working remotely?	How satisfied are you with your overall hybrid work model?
How satisfied are you with the flexibility of the hybrid work model?	Pearson Correlation	1	.822**	.776**	.771**
	Sig. (2-tailed)		.000	.000	.000
	N	137	137	137	137
How satisfied are you with the technology and tools provided to you for remote work?	Pearson Correlation	.822**	1	.860**	.842**
	Sig. (2-tailed)	.000		.000	.000
	N	137	137	137	137
How satisfied are you with your opportunities for career growth and professional development while working remotely?	Pearson Correlation	.776**	.860**	1	.893**
	Sig. (2-tailed)	.000	.000		.000
	N	137	137	137	137
How satisfied are you with your overall hybrid work model?	Pearson Correlation	.771**	.842**	.893**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	137	137	137	137

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

INTERPRETATION:

The table displays the findings of a correlation analysis among four variables related to hybrid work model satisfaction. All the correlations are positive and statistically significant ($p < 0.01$). There are significant relationships between satisfaction with flexibility, technology and tools, opportunities for career growth and professional development, and overall hybrid work satisfaction.

As a result, the Null hypothesis (H0) is rejected and the Alternate hypothesis (H1) is accepted.

4. CONCLUSION:

In conclusion, this study focused on examining the productivity of IT professionals in the hybrid work model. According to the research findings, the hybrid work model is favoured by the majority of IT workers, and it has a positive impact on productivity. The data analysis found a strong positive link between the perceived increase in productivity and the overall satisfaction with the hybrid work model among IT professionals.

The study highlights the importance of considering factors such as communication, engagement, team collaboration, motivation, recognition, and appreciation in the hybrid work model. The outcomes of the one-way ANOVA demonstrated significant differences among age groups and these variables, indicating that different age groups may have varying experiences and views in the hybrid work model.

The study's findings have several consequences for organizations. It emphasizes the need for a robust IT infrastructure, technological tools, and training to support remote work and collaboration. Organizations should also consider implementing performance analytics tools and metrics to measure progress and identify areas for improvement. Furthermore, the study emphasizes the importance of fostering a supportive and inclusive company culture to maximize the benefits of the hybrid work model.

According to the results, it is evident that the hybrid work model has the potential to improve productivity, satisfaction of the employee, and overall well-being. The study suggests that the hybrid work model is likely to become the norm in the near future. However, More study is required to investigate the long-term impacts of the hybrid work

arrangement. on various aspects, including financial performance, employee health, and organizational dynamics.

Overall, this study provides valuable insights into the productivity of IT professionals in the hybrid work model. It contributes to the existing literature by examining the specific needs and experiences of IT workers in the context of hybrid work. The findings offer practical implications for organizations aiming to optimize productivity and efficiency in the evolving work environment.

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