

Core Self-Evaluation, Job Attitudes & Productivity during Work from Home & Covid 19: A Study of Indian IT Employees

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The idea of Work from Home (WFH) has been one of the alternate workplace options for decades, mostly used by technology companies for their knowledge workers, and till 2019 it was available only at special request. The arrival of Covid 19 and the global lockdowns that followed made WFH mandatory.

For this study, we reviewed the literature on the concepts of Work from Home and the concepts of productivity from a non-mathematical point of view. Research about Work from Home in the Covid 19 period is limited as the pandemic is of recent origin. Following this review, we decided to focus our study on some aspects of personality and the attitudes of the IT professionals and the impact of these factors on their productivity.

A b s t r a c t

The study used a questionnaire sent out to IT employees of various organizations in India. Almost all these employees were working from their homes. Over 500 validated responses were received. The study found that some of the aspects of core self-evaluation and job attitudes were positively correlated to the productivity of the employee. At the same time, other aspects of these dimensions were not correlated to productivity. These differential results mirrored that of other scholars and earlier researches, where there was no unidirectional correlation between these variables and productivity.

This is one of the first detailed works on productivity during the course of Work from Home, both among knowledge workers as well as in the Indian context.

Keywords: Attitude, Core Self-Evaluation, Covid 19, Knowledge Workers, Productivity, Work from Home (WFH)

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DEFINITIONS

Some constructs used in this paper are defined below:

Core self-evaluation (CSE): *“CSE is the fundamental assessment that people make about themselves and their abilities and worthiness.”* (Judge, Locke & Durham, 1997)

Counterproductive Work Behavior (CWB): *“CWB is an employee’s intentional behaviour aimed at causing harm towards the organization.”* (Dalal, 2005)

Organization Citizenship Behavior (OCB): *“OCB is an employee’s voluntary behaviour, that may or may not be rewarded, and which improves the functioning of the organization.”* (Organ, 1988; Organ, 1997)

Job Attitude: *“Attitude reflects an employee’s positive or negative feeling about something or someone, including attitudes on the job, about the organization and about members of the organization.”* (Statt, 2015). *“A mindset or perspective that determines the behaviour and conduct.”* (Kurian, 2013)

INTRODUCTION

The onset of the Corona Virus Disease, 2019, or Covid 19, which was initially prefixed with "novel", spread rapidly from November 2019 as a worldwide pandemic. (Georgiou, 2020; WHO, 2020) The imposition of restrictions, strict enforcement of face masks, mandatory social distancing (De, 2020) and lockdowns across the world (Koh, 2020) forced businesses to look for alternative work arrangements to ensure business continuity, including shifting work to the homes of employees, wherever possible. This was also the case in India, where a national lockdown was imposed in March 2020 (De, 2020), allowing only essential operations for several weeks and months in various parts of the country. The knowledge workers of India's IT industry were also pushed into mandatory Work from Home, WFH.

The present research aimed to study how employers, organizations and employees responded to the crises, a once-in-a-lifetime situation where all employees and businesses had been forced to shift to WFH. It also presented a unique opportunity to understand this paradigm in depth. The research was undertaken

to specifically understand how the performance and productivity of the IT employees were influenced by some aspects of the personality (particularly, core self-evaluation) and the job attitudes of the employee. For this purpose, a questionnaire was distributed to IT employees who were working from Home in India and abroad, for which we received over 500 valid responses. The results of the data analysis showed a mixed pattern, with some aspects of core self-evaluation being correlated with productivity and similarly, some dimensions of job attitude being correlated to productivity while the employee was at WFH, and some dimensions being not correlated.

This research benefits from being one of the first major studies to focus on these aspects of the employee’s life while under lockdown and WFH.

REVIEW OF LITERATURE

Core Self-Evaluation & Employee Outcomes:

Ferris, Johnson, Rosen, Djurdjevic and Chang (2013) studied the relationship between Core-Self Evaluation (evidenced by self-esteem, generalized self-efficacy, emotional stability and locus of control) and job satisfaction. The study found that high CSE individuals have a high "approach" motivation at work. Further, "avoidance" motivation is stronger with lower success on the job.

A meta-analysis of long-term longitudinal data by Staw, Bell & Clausen (1986) indicated that later in life, job attitudes could be predicted with significant accuracy based on the employee's attitude from a young age. For example, if an employee was not emotionally adjusted, then it was likely to negatively reflect on his/ her attitude towards the job.

Organizational Citizenship Behavior (OCB) & Counterproductive Work Behavior (CWB) & Employee Outcomes:

Organizational Behavioural research has for long focussed on the productivity of employees in the knowledge industry. The focus was on the link between the personality and attitude of the employee and the employee’s productivity.

Motowildo & Scotter (1994) study argued that it was important to distinguish between task and contextual performance. They found evidence that *‘both task performance and contextual performance contribute*

independently to an individual's overall value for the organization'. Task productivity is technical performance, and contextual performance is job dedication and interpersonal facilitation. (Conway, 1999)

Rotundo & Sackett (2002) added to the understanding of contextual performance in two further dimensions, namely Citizenship, which they defined as actions of the employee *'contributing to the goals of the organization'*, and Counterproductive Performance, which referred to actions causing harm to the organization. Miles, Borman, Spector & Fox (2002) explored a model linking Organizational Citizenship Behavior (OCB) and Counterproductive Work Behavior (CWB) with positive and negative emotions. They found *'reasonable support'* to the assertions that a positive work environment led to positive emotions and thereby positive OCB behaviour. On the other hand, perception of a negative work environment led to negative feelings and, thereby, to CWB.

In a seminal meta-analysis, Dalal (2005) reviewed the literature on the relationship between OCB & CWB and found that these two constructs were not opposites. For example, while leisure time is important for OCB, an occasional unauthorized break (which could be CWB) would also serve the same purpose, that of de-stressing. Similarly is the case with an occasional aggressive reaction to a colleague. The author also noted that OCB & CWB of employees could either be targeted at the organization or individuals in the organization. O'Boyle, Forsyth & O'Boyle (2010) conceptualized that CWB of an employee is explained not only by his individual characteristics but also by multilevel factors - at the organization level (for example, supervision or team level norms), as well as the organization cultural factors and HR processes of the organization, working together.

Job Attitudes & Employee Outcomes:

Locke & Latham (1990), in a research article based on a study of the research on the linkage of motivation, job satisfaction and performance, found an inconsistent relationship between job satisfaction & productivity. Their study of other research revealed that for this link to exist, satisfaction had to lead to a commitment to the organization and its goals, which in turn need to be challenging, and if the employee showed high self-efficacy ("one's estimate of the

degree to which efforts will pay off" and "one's adaptability and creativity and capacity to perform"), then there would be a link to higher productivity.

Mathew, Ogbonna & Harris (2012) found that employee satisfaction, productivity, and work quality are pivotal drivers of financial performance and found a positive link between organizational culture, job satisfaction, and organization culture and productivity. The authors also found a positive linkage between quality of work and innovation.

A review of research on the subject of differences among generations across a wide spectrum of variables (including personality, work attitudes and leadership) by Lyons & Kuran (2013) found highly inconsistent conclusions.

A study by Zelles (2015) found a positive correlation between employee engagement and productivity amongst knowledge workers.

Work from Home and Employee Outcomes:

In 1990 Steve Jobs, the iconic founder of Apple, predicted the concept of Work from Home in an interview. (Headley, 2020) An early observer of the rise of knowledge work, Peter Drucker, stated that all the basic infrastructure was available for knowledge work to move from offices to the residences of employees. (Drucker, 1991)

With a focus on this alternative work arrangement, researchers studying management students found that people needed to see each other *'face-to-face'* to improve trust, rather than relying continually on electronic communication. (Moore et al., 1999) Indeed, researchers amongst more management students found that *'schmoozing'* (meaning, friendly talk or banter) and building a rapport was essential to a relationship when work was being done primarily by email among employees to build mutual trust. (Morris et al., 2002) A Michigan University study (Kossek & Dyne, 2008) also found that giving more flexibility at work to employees and giving them *'more face time'* would lead to better performance. A study of knowledge workers found that networking

with others across the organization while adding little to the work's value was essential because telephonic talks were cold and lifeless. (Birkinshaw, Julian, Cohen, Jordan, Stach, 2020) . Abrams (2019) found that employees working from home often had fewer opportunities to discuss and network with colleagues, thereby reducing creativity and affecting the employees' morale.

Oettinger (2011) identified that employees who worked from home felt that they were given less respect and were sometimes left out of discussions. Bartel et al.(2012), in their study covering both IT and non-IT employees, noted that one manager sent her employee an email every day, and at the end of the day, a reply was expected by the end of the day to check if the employee was working while at home. They also found that the employees working from home perceived that they were less respected.

A further meta-analysis by Gajendran & Harrison (2007) found no clear linkage of productivity and working from home, but there was evidence of increased autonomy as perceived by the employees as well as increased job satisfaction. A US study (Linos, 2020) found that while teleworkers showed a reduction in productivity, their peers who worked in the offices showed an increase in productivity.

A global study reported in HBR (Schawbel, 2018) indicated that around two-thirds of employees (most of these were knowledge workers) working from home did not feel engaged in their work.

Work from Home & Covid 19:

It has been estimated that (in the US) about one in three jobs could be performed at home, including knowledge work. (Dingel & Neiman, 2020; Bartik et al..2020)

In their research amongst white-collar employees, Bernstein, Blunden, Brodsky, Sohn, & Waber (2020) found that immediately after the lockdowns were implemented, there was initially a fall in productivity, which was to expected whenever a large scale change was implemented. After a couple of months, this fall was reversed as the employees settled at 10 to 20% longer working hours on average. Angelici & Profeta (2020), in a study of Italian workmen, found that "*smart working*" (working one day or more in a week) increased productivity. Birkinshaw,

Julian, Cohen, Jordan, Stach (2020) estimated that productivity was up because WFH brought down non-essential activities "*substantially*".

A 2007 study (Gajendran & Harrison, 2007) showed that women spend less time doing office work because of traditional responsibilities at home. An Italian study (Angelici & Profeta, 2020) found that the work from home option was preferred by women where the children were young. A US study in Science magazine (Collins, 2020) showed that the number of papers published by women in academic journals, compared to men, had come down during the pandemic. This was attributed to the increased time spent by women in children and house related work.

However, Baruch (2000), in a study amongst largely knowledge workers in the UK, found that gender was not a factor, and there was no significant difference in productivity due to gender.

In a survey among IT employees in Bengaluru, India (Singh et al., 2020), two out of three employees said that they could be spending more working hours during Work from Home, thereby increasing their productivity as well as improving the work-life balance. However, there was increased insecurity amongst the employees due to the communication gaps with their colleagues and managers. Patil & Gopalakrishnan (2020) found that women employees had a more difficult time during the lockdown as they had to balance their responsibilities both at work and home. A study amongst Indian employees of multinational companies (Seema et al. 2020) found that 50% of participants reported higher productivity, and about 27% reported lower productivity. A significant number (about 23%) expected that their appraisals would be negatively affected because of their working from home. Another study (Abrams, 2019) found that the debate over the effectiveness of work from home was centred around the lesser interactions and discussions between office colleagues during WFH as opposed to working together in an office.

Work from Home & the Future:

Guyot, Katherine and Sawhill (2020) predicted that Work from Home would continue in the foreseeable future. Well-known thought leader Peter Cappelli

(Cappelli, 2020) warned businesses and CEOs not to exploit WFH due to increased productivity.

RESEARCH GAP

Studies on the Work from Home due to the Covid 19 induced lockdowns have been limited since this paradigm is of recent origin. This is an obvious gap which this study attempts to bridge.

The study aims to understand how employees, employers, and organizations are dealing with the important concept of employee productivity while under prolonged WFH.

The study picked a few employee characteristics, including core self-evaluation and job attitudes, among the many variables available and tried to identify the influencers of employee productivity. The review of literature establishes that while these have been studied in earlier environments, including working from normal offices and occasional work from home, this would be the first major study in this Covid 19 environment.

RESEARCH QUESTION

The Research Question examined in this study is: What was the impact of dimensions such as Core Self Evaluation and Job Attitudes like Organizational Citizenship Behavior and Counterproductive Work Behavior on the productivity of the IT employees while at WFH during Covid 19.

HYPOTHESES

Based on the review of the literature and the resultant gaps identified, the Null Hypotheses to be examined in this study, as Independent Variables, were:

“WFH Productivity” was the Dependent Variable.

Dimensions of Core Self Evaluation (CSE):

H₀ 1) The CSE dimension of “Satisfaction with Self” has no influence on Productivity during WFH.

H₀ 2) The CSE dimension of “Control over Career” has no influence on Productivity during WFH.

Dimension of OCB & CWB:

H₀ 3) The OCB factor of “Volunteered for ExtraWork” had no influence on Productivity during WFH.

H₀ 4) The OCB factor of “Mentored/ Coached Co-workers” had no influence on Productivity during WFH.

H₀ 5) The CWB factor of “Unhappy at Workplace” had no influence on Productivity during WFH.

Dimensions of Job Attitudes:

H₀ 6) The attitudinal dimension of “Respect for the Supervisor” had no influence on Productivity during WFH.

H₀ 7) The attitudinal dimension of “Like my Co-workers” had no influence on Productivity during WFH.

H₀ 8) The attitudinal dimension of “Proud of the Org” had no influence on Productivity during WFH.

METHODOLOGY

For this study, the researchers put together a questionnaire that was distributed to the IT employees of a large number of companies in the IT industry. The questionnaire was online and used a well-known, independent platform for ensuring the anonymity and confidentiality of the questionnaire. The questionnaire was kept open for a few weeks from July 2020, and we received over 500 valid responses (out of over 700 total responses).

The questionnaire drew on questions from well known and free to use questionnaires available in the open domain. For Organizational Citizenship Behaviour and Counterproductive Work Behaviour: Spector & Fox, 2003; and Spector, Bauer, & Fox, 2010; and for Core Self-evaluation: Judge, Erez, Bono, & Thoresen, 2003.

Wherever applicable, the Likert 5 point scale was used. Other questions used scales as appropriate.

Statistical analysis was conducted using SPSS 23.

RESULTS

Results of Bartlett’s Test (0.881, that is above 0.70) and for the KMO (Kaiser-Myer-Oklm) test (approx. chi-square 5545.525, df 276 and Sig .000) were above the required levels. PCA (Principal Component Analysis) and Varimax Rotation method found

Eigen values above required levels (> 1 and rotation converged in 6 iterations.

The groupings were also subjected to Reliability tests, and with Cronbach's Alpha above 0.7, the reliability of the groups was established.

Reliability Statistics	
Cronbach's Alpha	No. of Items
.719	8

The following table summarizes the demographics of the sample:

Total Sample	N =	526
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Gender:	Male	84.03%
	Female	15.97%

Qualifications:	Bachelor Degree	53.80%
	Master's Degree	42.40%
	PhD's	0.95%

Age	Age Group	Percentage
	≤ 25	6.84%
	26 - 30	15.78%
	31 - 35	16.16%
	36 - 40	19.20%
	41 - 45	22.24%
	46 - 50	10.84%
	51 - 55	4.75%
	56 - 60	2.85%
	61+	1.33%

Location	Bengaluru	48.10%
	Pune	30.80%
	Other - India	18.90%
	Other - World	2.30%

Table 1: Summary of Demographic Data

Respondents were also asked a direct question on what was their productivity during the lockdown enforced WFH period, and they responded as under:

Effect of WFH on Productivity		
	Frequency	
Major increase in Productivity	205	38.97%
Minor Increase in Productivity	154	29.28%
No Change in Productivity	129	24.52%
Decrease in Productivity	38	7.22%
Major or Significant Fall in Productivity	0	0
Total	526	

Table 2: Productivity of the Employee during WFH:

Quantitative and Statistical Analysis:

WFH Productivity was the Dependent Variable for the study. The Independent Variables are given in the various Hypotheses.

	Variables	Correlation Co-efficient	p-value	Confidence Level	Result
1	"Satisfaction with Self"	0.079	0.069	95%	Null Hypothesis could not be rejected
2	"Control over Career"	0.099	0.024	95%	Null Hypothesis Rejected
3	"Volunteered for Extra Work"	0.128	0.003	99%	Null Hypothesis Rejected
4	"Mentored/ Coached co-workers."	0.068	0.119	95%	Null Hypothesis could not be rejected
5	"Unhappy at Workplace"	0.008	0.855	95%	Null Hypothesis could not be rejected
6	"Respect for Supervisor"	0.082	0.059	95%	Null Hypothesis could not be rejected
7	"Like my co-worker."	0.08	0.066	95%	Null Hypothesis could not be rejected
8	"Pride in Org"	0.147	0.001	99%	Null Hypothesis Rejected

Table 3: Confidence level & p-values

Dimensions of CSE:

1) "Satisfaction with Self":

There is no relationship between the variable "Satisfaction with Self" and WFH productivity.

2) "Control over Career":

With a Sig. Value of 0.024, which is less than 0.05, we rejected the Null Hypothesis and concluded that WFH productivity and "Control over Career" are correlated.

Dimensions of Job Attitude:

3) "Volunteered for Extra Work":

With a Sig. Value of 0.003, which is less than 0.05, we rejected the Null Hypothesis and concluded that WFH productivity and "Volunteered for Extra Work" are correlated.

4) "Mentored/ Coached Co-worker":

There is no relationship between the "Mentored/ Coached Co-worker" and WFH productivity.

5) "Unhappy at Workplace":

There is no relationship between "Unhappy at Workplace" and WFH productivity.

6) "Respect for Supervisor":

There is no relationship between "Respect for Supervisor" and WFH productivity.

7) "Like my Co-workers":

There is no relationship between "Like my Co-worker" (H₀ 7) and WFH productivity.

8) "Pride in Org":

With a Sig. Value of 0.001, which is less than 0.05, we rejected the Null Hypothesis and concluded that WFH productivity and "Pride in Org" are correlated.

Summary of Hypotheses:

	Null Hypotheses Rejected		Null Hypotheses could not be rejected
H ₀ 2	"Control over Career"	H ₀ 1	"Satisfaction with Self"

H ₀ 3	"Volunteered for Extra Work"	H ₀ 4	"Mentoring/ Coaching/Co-workers"
H ₀ 8	"Pride in Org"	H ₀ 5	"Unhappy at Workplace"
		H ₀ 6	"Respect for Supervisor"
		H ₀ 7	"Like my Co-workers"

Table 4: Summary of Hypotheses**DISCUSSION**

With the unexpected onset of Covid 19, the lockdowns across the world ensured that Work from Home was not voluntary, as all industries were forced to look for options for business continuity. This was particularly true of the knowledge industry, where knowledge workers are the key resources. Work from home has had an uneven history, with the concept being accepted for about 50 years as of now, yet it was not widespread till the advent of the pandemic.

During this pandemic period, Organizational Behaviour research on the topic was still evolving, and this study is a major contributor to our awareness of the dimensions of this subject. As employees of the IT industry (the respondents to the questionnaire) adjusted to the first mass level work from home orders, it is possible that the studies into their behaviour, personality, attitudes, as well as studies into the thinking of the leadership of these organizations, is still evolving. Therefore some of the findings, discussion points and conclusions are as yet initial impressions based on an early reading into the productivity of the employees during Work from Home.

Dimensions of CSE:

Core self-evaluation (CSE) is an important characteristic of personality and deals with what a person or an employee feels about themselves. Research of several scholars has shown that CSE dimensions have a positive influence on the productivity of the employee. For this study, two aspects of CSE were examined, "Satisfaction with Self" (in response to the question, "Overall, I am satisfied with myself") and "Control over Career" (in response to the question, "I feel in control of the progress of my Career"). The first showed no

correlation with the productivity during work from home, while employees at WFH showed a correlation of the second with their productivity.

We could interpret these results in that having control over one's career may be of more importance to an individual during WFH and more so during the initial days of the lockdowns. There were several anecdotal stories and newspaper reports of employees losing jobs and excessive demands of supervisors immediately after the pandemic induced WFH started. There were stories of employees feeling isolated and even fears of not being visible to the management while at WFH. This might have influenced employees to be more concerned with their careers.

In the office workplace (which may be termed as "Work from Office", WFO) ", Satisfaction with Self", which includes elements of a positive self-image, may be correlated to productivity, based on which colleagues and superiors or subordinates would form an opinion on the employee. On the other hand, it is assumed that while at Work from Home, an employee would be surrounded by loving family members (or friends), where a positive self-image would be more easily available, and therefore would not be linked directly to productivity.

Dimensions of Job Attitudes:

We are still in the early phases of understanding all the implications of working from home on the employees' well-being and performance while at work from home. Extending the arguments made above on work from home and work from the office, the following observations may be made about the link between job attitudes and productivity.

Job attitude is the mindset one brings to the workplace as well as the positive and negative feelings an employee has about work and co-workers. One set of job attitudes revolves around being a good citizen of the organization and its companion, not doing anything counterproductive with respect to the organization. Previous research had established a positive correlation to these positive job attitudes to the employee's productivity when employees were working from the office or working from home for shorter intervals or on a voluntary basis.

In our study, the job attitude having a positive correlation with productivity while at work from home was "Volunteered for Extra Work" (in response to the question, "Have you volunteered for extra work assignments in the past one year?"). This may be better understood in the context of sudden imposition of work from home on all the employees. Employees who helped out managers and management by taking on some of the extra responsibilities associated with transitioning to the WFH would have been positively appreciated by the managers as well as co-workers while making the employees feel good about themselves. Similarly, if the employee did not complain about the extra work, odd timings, especially in the early days of WFH, then managers and co-workers would also have positively seen that.

The other dimensions of Job Attitude that were examined for this study did not find any positive correlation with productivity, and this was in variance with the generally positive correlation between a positive job attitude and productivity in literature. We can only posit some general conclusions. The dimension of "Mentored/ Coached Co-workers" (in response to the questions, "Have you spared time to advise, mentor or coach, a co-worker?" may have been subsumed in the other dimension of "Volunteered for Extra Work", discussed above. The other explanation could be that the earlier opportunity to lean across an aisle or workplace in the office and sort out a co-workers problem would be less in work from home setting.

Two other dimensions of job attitude examined in this study did not find any correlation with productivity during WFH. These were "Respect for Supervisor" (in response to the question, "My supervisor is quite competent" and "Like my co-workers", in response to the question, "I like the people I work with"). Both these dimensions have been studied previously by other researchers, and the dimensions have been found to be positively correlated to productivity. We can examine the seeming anomaly of these not being correlated to productivity in this study by attempting to understand the WFH environment, following a mandated policy for all IT organization employees. There was a certain amount of initial confusion when WFH was implemented in coordinating, setting up newer procedures and so on, most of which was

probably laid at the doorsteps of the supervisor. This could not explain having this dimension as an influencer of productivity. Similar would be the environment at Work from Home when expressing the pleasure of working with other employees. While in the office, co-workers could understand a non-verbal expression, while at WFH, one would need to verbally express positive or negative sentiment. Verbalizing sentiments expressed previously by expressions may be onerous for some employees. This could, in turn, lead to de-coupling the sentiment from the productivity of the employee.

We posit that in general, expression of feelings, showing respect, even friendliness with colleagues which all may have been an occupational necessity (apart from being a pleasure or a pain as the case may be) while in a WFO environment, during the lockdown induced work from home, these could be avoided altogether in an employee. On the other hand, the qualitative comments received from respondents also tells us that going out of the way to express feelings, thoughts, and messages verbally was important to ensure that the message was conveyed to the recipient.

We turn to the counterproductive job attitude or behaviour of "Unhappy at Workplace" in response to the question, "In the past one year, have you told your friends or family that you are unhappy or not satisfied at your work place?" In general, previous researches in the WFO environment, or occasional WFH, has found that Counterproductive Work Behaviour (CWB) has been found to be negatively correlated with productivity. That is, work place low, then productivity would be high. However, the dimension of CWB examined in our study, of telling others that one was "Unhappy with the Workplace", was not found correlated to productivity. The pandemic left businesses in a very uncertain environment, and negative sentiments loomed for several industries and businesses. In this environment, we would posit that curtailing one's negative feelings for the employer, and a willingness to put on a positive face, would have logical self-preservation tactics.

Finally, we examine the variable "Pride in Org" and find that it is correlated to productivity while at WFH. At a time of great stress, such as that caused due to the Covid 19 pandemic, it would be important for the

employees to have a few anchors to hold on to and keep contributing to the organization. As we have seen above, one of these is to have control over one's career, and another is to volunteer and contribute to the success of the organization by working extra. The employee's "Pride in Org" would logically be one more such anchor. The fact that the organization had systems and processes which allowed an employee to have control over one's career during the pandemic would add to their pride in the organization, and having pride in the organization would encourage an employee to put in the extra effort and volunteer to help out wherever possible.

CONCLUSIONS & RECOMMENDATIONS

From the Results section Discussion, we may draw several conclusions & recommendations:

The core self-evaluation of an individual is a part of the personality, and once the employee has joined an organization, these are not easy to influence. Therefore, organizations would depend on their culture, values, systems, and processes to channel employees' efforts into positive or beneficial actions.

Wherever possible, organizations may follow the patterns of using psychometric tests and personality questionnaires to shortlist employees who would fit well in the company or eliminate employees who may be misfits.

Regular feedback and necessary mentoring and coaching by employers can help improve the performance and productivity of the employee, as well as assure the employee that the organization is serious about ensuring a career path for the employee and may help uncover aspirations.

Job satisfaction and organizational commitment are positively associated with a positive work environment leading to positive results. Organization Development (OD) interventions focused on people management may provide insights into the specific organizational measures that may support the creation of a more satisfied and committed workplace. Regular training programs on ethics and values can also keep the focus of the employees on what is of importance or "Value" to the organization. Where these values are demonstrably aligned to

what the employee also values, the employee's pride in the organization would also be enhanced.

A managerial style that could be classified as "light touch", where the manager does not micro-manage the employee, may achieve better results and more respect for the manager. This may be at odds with a WFH environment where the manager is not able to "see" the employee, and the manager, therefore, feels more control is required. We recommend that managers increase their "touch" with the employees, with an aim to improve the comfort levels of the employee when at remote work.

CONTRIBUTION

This research is one of the early studies on the impacts of the lockdown induced WFH. We focussed on the productivity of the individual IT professionals within the context of WFH, and some of the employee's personal variables such as core self-evaluation and job attitudes. Very few studies exist as of the date on the effects of the WFH due to the Covid 19 and the impact. We started this about four months into the lockdowns, that is, from July 2020 and collected data and information up to December 2020. We also spoke to dozens of IT employees, from CEOs to junior level individual contributors.

We believe that this is a major contribution to the WFH business model research and gives us important pointers on what individual employees and organizations could do to improve working during WFH.

PRACTICAL IMPLICATIONS

Work from home is likely to be a new normal for at least the immediate future. Several companies have indicated that this may continue indefinitely, at least for a portion of their employees. This research study gives pointers on some of the factors that organizations can focus on and improve to make WFH more successful.

We believe that the research points us towards some of the characteristics of the IT employees where managerial and organizational roles could focus on making a difference.

LIMITATIONS

The move towards WFH by many IT companies in 2020 was not a planned transition. Therefore, research has been late to respond on this subject, and this paper has some limitations. This paper concentrated on some of the variables that influence IT employees' productivity.

There could be several other factors and variables which could be studied.

The research is also limited to employees of the IT industry, and this could be extended to compare the results to other Knowledge Workers.

SCOPE FOR FURTHER RESEARCH

The necessity to ensure business continuity led to WFH being imposed in a relatively swift manner. This denied researchers the opportunity of a pre-, current and post- comparison of the productivity with various independent variables, including those of this study. One way would be to study the same variables soon after 'normalcy' and Work from Office (WFO) once again becomes the norm.

This research focuses on some variables, and several more variables could be studied for their relation with productivity.

Finally, this research is on the IT/ Knowledge Workers, and it would be useful to compare these results on employees in other industries.

REFERENCES

- Abrams, Z. (2019). The Future of Remote Work. American Psychological Association. <https://doi.org/10.2139/ssrn.3638597>
- Angelici, M., & Profeta, P. (2020). Smart-working: Work flexibility without constraints.
- Bailyn, L. (1988). Freeing work from the constraints of location and time. *New Technology, Work and Employment*, 3(2), 143–152. <https://doi.org/10.1111/j.1468-005X.1988.tb00097.x>
- Bartel, C. A., Wrzesniewski, A., & Wiesenfeld, B. M. (2012). Knowing where you stand: Physical isolation, perceived respect, and organizational identification among virtual employees
- Bartik, A. W., Cullen, Z. B., Glaeser, E. L., & Stanton, C. T. (2020). What Jobs Are Being Done At Home During the Covid-19 Crisis? NBER Working

- Paper Series. <http://www.nber.org/papers/w27422.ack>
- Baruch, Y. (2000). Teleworking: Benefits and pitfalls as perceived by professionals and managers. In *New Technology, Work and Employment* (Vol. 15, Issue 1, pp. 34–49). <https://doi.org/10.1111/1468-005X.00063>
- Berstein, E., Blunden, H., Brodsky, A., Wonbin, W., & Waber, B. (2020). The implications of working without the office. *Harvard Business Review*, 15.
- Birkinshaw, J., Cohen, J., & Stach, P. (2020) Research: Knowledge Workers are More Productive From Home. *Harvard Business Review*
- Cappelli, P. (2020). Stop Overengineering People Management. *Harvard Business Review*, 98(5), 56-63.
- Collins, C. (2020). Productivity in a pandemic. *Science*, 369(6504), 603. <https://doi.org/10.1126/science.abe1163>
- Conway, J. M. (1999). Distinguishing contextual performance from task performance for managerial jobs. *Journal of Applied Psychology*, 84(1), 3–13. doi: 10.1037/0021-9010.84.1.3
- Dalal, R. S. (2005). A Meta-Analysis of the Relationship Between Organizational Citizenship Behavior and Counterproductive Work Behavior. *Journal of Applied Psychology*, 90(6), 1241–1255. doi: 10.1037/0021-9010.90.6.1241
- De, A. (2020). Coronavirus India timeline: Tracking crucial moments of Covid-19 pandemic in the country. Retrieved January 04, 2021, from <https://indianexpress.com/article/india/coronavirus-covid-19-pandemic-india-timeline-6596832/>
- Dingel, J. I., & Neiman, B. (2020). How many jobs can be done at home? *Journal of Public Economics*, 189. <https://doi.org/10.1016/j.jpubeco.2020.104235>
- Drucker, P. (1991). The New Productivity Challenge. *Harvard Business Review*, November – December
- Ferris, D. L., Johnson, R. E., Rosen, C. C., Djurdjevic, E., Chang, C. H. D., & Tan, J. A. (2013). When is success not satisfying? Integrating regulatory focus and approach/avoidance motivation theories to explain the relation between core self-evaluation and job satisfaction. *Journal of Applied Psychology*, 98(2), 342.
- Gajendran, R. S., & Harrison, D. A. (2007). The Good, the Bad, and the Unknown About Telecommuting: Meta-Analysis of Psychological Mediators and Individual Consequences. *Journal of Applied Psychology*, 92(6), 1524–1541. <https://doi.org/10.1037/0021-9010.92.6.1524>
- Georgiou, A. (2020, November 17). It's been exactly one year since the first case of COVID was found in china. Retrieved January 07, 2021, from <https://www.newsweek.com/one-year-first-covid-case-china-1547200>
- Guyot, Katherine and Sawhill, I. V. (2020). telecommuting will likely continue long after the pandemic.pdf. Brookings.
- Headley, C. (2020, July 16). Steve jobs predicted the power of a remote Workforce 30 years before COVID-19. Retrieved March 24, 2021, from <https://www.theladders.com/career-advice/steve-jobs-predicted-the-power-of-a-remote-workforce-30-years-before-covid-19>
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2003). The core self-evaluations scale: Development of a measure. *Personnel psychology*, 56(2), 303–331.
- Judge, T. A., Locke, E.A., & Durham, C.C. (1997). “The dispositional causes of job satisfaction: A core evaluations approach”, *Research in Organizational Behavior*, 19, 151-188
- Kira, Repietta, Beckmann, M. (2016). Working from home what is the effect on employees effort. Econstor.
- Koh, D. (2020). COVID-19 lockdowns throughout the world. *Occupational Medicine*, 70(5), 322. <https://doi.org/10.1093/occmed/kqaa073>
- Kossek, E. E., & Dyne, L. Van. (2008). Face-Time Matters: A Cross-Level Model of How Work-Life Flexibility Influences Work Performance of Individuals and Groups. *Handbook of Work-Family Integration*, 305–330. <https://doi.org/10.1016/B978-012372574-5.50020-X>
- Kurian, G. T. (2013). The AMA dictionary of business and management. New York: *American Management Association*.
- Levering, R. (1996, September). Employability and trust. In Conference Board meeting, Chicago, Retrieved August (Vol. 3, p. 2004).
- Linos, E. (2020). When Working from Home Changes Work at the Office.

- Locke, E. A., & Latham, G. P. (1990). Work Motivation and Satisfaction: Light at the End of the Tunnel. *Psychological Science*, 1(4), 240–246. doi: 10.1111/j.1467-9280.1990.tb00207.x
- Lyons, S., & Kuron, L. (2013). Generational differences in the workplace: A review of the evidence and directions for future research. *Journal of Organizational Behavior*, 35(S1). doi: 10.1002/job.1913
- Mathew, J., Ogbonna, E., & Harris, L. C. (2012). Culture, employee work outcomes and performance: An empirical analysis of Indian software firms. *Journal of World Business*, 47(2), 194–203. doi: 10.1016/j.jwb.2011.04.006
- Miles, D. E., Borman, W. E., Spector, P. E., & Fox, S. (2002). Building an Integrative Model of Extra Role Work Behaviors: A Comparison of Counterproductive Work Behavior with Organizational Citizenship Behavior. *International Journal of Selection and Assessment*, 10(1&2), 51–57. doi: 10.1111/1468-2389.00193
- Moore, D. A., Kurtzberg, T. R., Thompson, L. L., & Morris, M. W. (1999). Long and Short Routes to Success in Electronically Mediated Negotiations: Group Affiliations and Good Vibrations. *Organizational Behavior and Human Decision Processes*, 77(1), 22–43.
- Morris, M., Nadler, J., Kurtzberg, T., & Thompson, L. (2002). Schmooze or Lose: Social Friction and Lubrication in Email negotiations. *Group Dynamics*, 6(1), 89–100. <https://doi.org/10.1037/1089-2699.6.1.89>
- Motowidlo, S. J., & Scotter, J. R. V. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79(4), 475–480. doi: 10.1037/0021-9010.79.4.475
- O'Boyle, E. H., Forsyth, D. R., & O'Boyle, A. S. (2010). Bad Apples or Bad Barrels: An Examination of Group- and Organizational-Level Effects in the Study of Counterproductive Work Behavior. *Group & Organization Management*, 36(1), 39–69. doi: 10.1177/1059601110390998
- Oettinger, G. S. (2011). The Incidence and Wage Consequences of Home-based Work in the United States, 1980–2000. *Journal of Human Resources*, 46(2), 237–260. <https://doi.org/10.3368/jhr.46.2.237>
- Organ, D. W. (1988). Organizational citizenship behavior: The good soldier syndrome. Lexington Books/DC Heath and Com.
- Organ, D. W. (1997). Organizational citizenship behaviour: It's construct clean-up time. *Human Performance*, 10: 85–98.
- Patil, R., & Gopalakrishnan, G. (2020). A study on employee experience with respect to remote working during the Covid-19 pandemic. *Journal of Critical Reviews*, 7(11), 3910–3918. <http://www.jcreview.com/?mno=112118>
- PTI. (2020a) Over 70 pc companies likely to continue work-from-home policy for next 6 month: Survey. <https://economictimes.indiatimes.com/news/company/corporate-trends/over-70-pc-companies-likely-to-continue-work-from-home-policy-for-next-6-month-survey/articleshow/75848078.cms>
- PTI. (2020b). Over 70 per cent companies likely to continue work-from-home policy for next 6 month: Survey. <https://www.thehindubusinessline.com/news/over-70-per-cent-companies-likely-to-continue-work-from-home-policy-for-next-6-month-survey/article31632941.ece>
- PWC. (2020). US Remote Work Survey: PwC. In 2020 (pp. 1–1). <https://www.pwc.com/us/en/library/covid-19/us-remote-work-survey.html>
- Rotundo, M., & Sackett, P. R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of job performance: A policy-capturing approach. *Journal of Applied Psychology*, 87(1), 66–80. doi: 10.1037/0021-9010.87.1.66
- Schawbel, D. (2018). Survey: Remote workers are more disengaged and more likely to quit. *Harvard Business Review Digital Articles*, 1-4.
- Schiff, F. W. (1979). Working at Home Can Save Gasoline. *Washington Post*. https://www.washingtonpost.com/archive/opinions/1979/09/02/working-at-home-can-save-gasoline/ffa475c7-d1a8-476e-8411-8cb53f1f3470/?utm_term=.eb866ed6d70c
- Seema, Rani, Curtis, Prettysha, Reddy, J. (2020). A Study on Work from Home , Motivation & Productivity of Employees in Indian Population during COVID-19 Pandemic. *Research Gate*,
- Singh, M. K., Kumar, V., & Ahmad, T. (2020). Impact of Covid-19 Pandemic on Working Culture:

An Exploratory Research Among Information Technology (IT) Professionals in Bengaluru, Karnataka (India). *SSRN Electronic Journal*, 12(5), 3176–3184.

Spector, P. E. (1994). Job Satisfaction Survey. From: <http://paulspector.com/scales/pauls-no-cost-assessments/job-satisfaction-survey-jss/>

Spector, P. E., & Fox, S. (2003). Reducing subjectivity in the assessment of the job environment: Development of the Factual Autonomy Scale (FAS). *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 24(4), 417-432.

Spector, P. E., Bauer, J. A., & Fox, S. (2010). Measurement artifacts in the assessment of counterproductive work behavior and organizational citizenship behavior: Do we know what we think we know?. *Journal of Applied Psychology*, 95(4), 781.

Statt, D. A. (2004). The Routledge dictionary of business management. *Routledge*.

Staw, B. M., Bell, N. E., & Clausen, J. A. (1986). The Dispositional Approach To Job Attitudes: A Lifetime Longitudinal Test. *Administrative Science Quarterly*, 31(1), 56. doi: 10.2307/2392766

WHO. (2020). WHO Director General's Opening Remarks at the Media Briefing on Covid-19 on 11 March 2020. Retrieved January 4, 2021.

Zelles, R. (2015). Better profitability through higher employee engagement in the knowledge worker age. *Journal of Human Resource Management*