

THE IMPACT OF EMPLOYEE ENGAGEMENT AND WORK CULTURE ON THE PRODUCTIVITY OF EMPLOYEES IN THE IT INDUSTRY IN INDIA

Sofi Saimon George

Asia Pacific University of Technology and Innovation
sofi.saimon@gmail.com

Subaashnii Suppramaniam

Asia Pacific University of Technology and Innovation
subaashnii@staffemail.apu.edu.my

Thilageswary Arumugam

Asia Pacific University of Technology and Innovation
thilageswary@staffemail.apu.edu.my

Abstract

Employee productivity is critical to any company's or organization's success. And an employee's productivity is influenced by a variety of things such as the work environment. Goals, Business Processes, Employee Wellness, Management Competition, and Employee Relationships are all examples of training, skills, and knowledge. Two of such major factors and their influence on productivity are being discussed in this study, which is Employee Engagement and Work Culture. This study gives an overview and analysis on the hypothesis which analyses if there is a relationship between these variables and productivity. A descriptive analysis was then conducted on both the demographic information and the variables (Employee Engagement, Work Culture and Productivity) data, which provide us with their Frequencies and Cumulative percent. Next, A Pearson's Correlation Analysis was conducted. Lastly, a multiple regression analysis was conducted, and we finally concluded that the independent variable in this study contributes to 45% of the influence on improvement in productivity, while the other 55% is contributed by various other variables not included in this study. Though most of the other studies conclude that both employee engagement and Work Culture have a strong relationship with productivity. This study as per the statistics of the response received shows that Work Culture has a strong relationship with productivity, while Engagement doesn't. This study shows the importance of improving Engagement and Culture initiatives because they lead to better sustainability of organizations.

Keywords: *Productivity, Employee Engagement, Work Culture, Internal and External Factors, Working Hours, Environment, Emotional Exhaustion, Job Satisfaction, Employee Relationships*

1.0 Introduction

The IT Industry has been growing immensely over the years and helping to make the lives of everyone around them a little better by introducing new ways or applications to do things easily which would otherwise require a lot of hard work. The core foundation of the current era is digital, and the internet and it evolves over time into newer and faster technologies – which

roughly translates to productivity (Industry today, 2019). But to come up with these newer and exciting creative ideas. The IT industry should consist of employees that are motivated to work for their companies and put more effort without even being asked to do so. This will happen only if the company or organization they work in has high values, great work culture, improved employee engagement, introduce new and innovative recognition awards etc. This research studies the relationship between these factors and their influence on productivity.

The world is going through major shifts recently and the IT sector has been playing a major role in improving the quality of life for every existing human being. And as the employees in the IT sector work at making life easy for the people around them, the Human Resource personnel of the respective organizations needs to be able to help their employees cope with the increasing expectations, improve their productivity, keep them focused and help them to be content and comfortable at the same time (Chow, 2020).

The Information Technology sector consists of two components, namely, software and hardware. The industry gained major popularity in the early 90s in India. India gradually transformed into an imperium in the software industry because of its tremendous populace of skilled workforce. The software industry in India is renowned for its cost-effectiveness, high quality, reliability, express delivery of results, projects or outcomes and the utilization of the latest technologies. The productivity and profits of the IT sector are mainly showcased by the revenues earned by the industry. An example for this is, even though there were challenges globally when there was deflation in technology, the IT sector in India Outperformed all other industries in the country and produced revenues of about Rs. 46,100 crores (Chand, 2013)

The Productivity of employees plays a prominent part in the success of any company or organization and the productivity of an employee depends on various factors like the work environment (Duru and Shimawua, 2017), Training, skills and knowledge (Donohoe, 2011), Goals (Avery, 2017), Business Processes (Hussain, 2017), Employee Wellness (Miller, 2015), Management (Dorgan, S. J. et al., 2006), Competition, Relationships between employees (Evans, 2018). Two of the many major factors that affect the productivity of an employee are studied in this report. The factors are Employee Engagement and Work Culture. The main drivers for the various effective strategies that help make the employees more productive are the strategies implemented by HR. The main goal of HR is to fulfil the mission and vision statements of an organization and produce more profits for the organization by making its employees more efficient, focused and robust. Improving the productivity or performance of an employee is a very tedious task as HR should come up with various ways of improving the morale, culture and environment that surround the employees (Luenendonk, 2019).

Employee Engagement refers to the dedication or the contentment of an employee in his/her work. When employees are engaged they tend to have an emotional connection to their job. An example of Employee Engagement is Tesla. They had huge numbers of accidents that led to the injury of workers there but to improve the safety and induce Employee engagement, Elon musk made sure that every injury was reported to him so that appropriate steps could be taken to not let the accidents happen again in the future. And this strategy worked as the accidents reduced by 50% in the following year (Smith, 2020).

According to Jim Clifton, the CEO of Gallup, the major factors that aid in improving Employee Engagement in an organization are Personal and Professional Development, good work culture, leadership or management (Donaldson, 2017).

According to a survey conducted by the ADP research institute, India showed a great percentage of workers who are fully engaged in their work in a global context. In India, only 22% of the employees are fully engaged and give their best to their work. In almost all of the private or government companies, the management is tight and the rules and regulations are expected to be followed to a point. This eventually reduces the opportunity for creativity and hence employees tend to feel emotionally exhausted. This costs them their productivity to fall at a rapid rate and hence reduces profits of the organization (Narayan, 2019).

It is really important for employees to feel comfortable at their workplace and enjoy their work. This is possible only if the organization they work have an amazing work culture. The alignment of the beliefs and attitudes of the employees with visions and ideologies of the company can bring about huge improvements in the company and this also can be achieved by instilling an excellent work culture in the company. According to Prachi Juneja, An excellent Work Culture in an organization makes the employees satisfied while also making them more productive (Juneja, 2015)

Indian workplaces tend to hold on to the hierarchical system at the workplace and hence there is a barrier between the worker and the employer. But this is not the case in other countries around the world. They address even the senior-most citizens or employees in their company with their names. This is said to build a rapport between employees and their management, while also making the relationship more casual. The opinion of every employee is valued. India is also gradually adopting this culture because young Indians are dynamic and are open in their views and ideas. Thus workplaces are adopting the best strategies in implementing the best culture that can improve the conditions of the employee with rest to building culture (Sharma, 2013).

This study aims to understand the relationships, factors and components that influence productivity with the help of several models and frameworks, while also keeping the main focus of the research on the effect of Employee Engagement and Work Culture on the productivity of employees in the IT sector in India.

2.0 Literature Review

This chapter will elaborate on the past research that were conducted and their outcomes. The literature review will showcase the studies that were conducted on the various factors pertaining to this study individually as well as in a combination with other dependant factors. In addition, this chapter will discuss Productivity, the main factors and the underlying factors that impact it. The hypothesis and theories with regard to the research to provide a pathway for the research also will be discussed in this research. The outcome of this literature review will aid in constructing the research model for this study. This chapter will also test and try the hypotheses.

2.1 Productivity

Productivity refers to the efficiency of the organization. It is defined as the effectiveness with which a company, industry, or economy uses its resources like labour, supplies, and money in the production process to create output in the form of products and services. It is considered a significant driver of economic development and is used as the base for many cross-country comparisons and their performance evaluations (Krugman, 1994). Previous studies suggest that there are different measures through which we can measure productivity. The productivity of organizations around the world is slowing down because of the mismeasurements. But this

error amounts to only a small percentage of the slowdown of production. The study emphasized the importance of the factors - Labour productivity, capital and their impact on the growth of productivity (Pelis, 2018).

According to Giga et. al. (2003), there are various variables that affect and influence the productivity of an organization. Some of them are competency, workload, mental health, bias and devotion to work. These factors also play a prominent role in determining the performance or productivity of an organization. There are other variables that impact the productivity of an organization like the employee engagement, culture, working hours, environment, emotional exhaustion, job satisfaction, employee relationships etc. This study focuses on two of the main factors that affect the productivity of employees and organisations in general.

2.2 Employee Engagement

There are past researches conducted on personal engagement and how it influences the employees' role at work. This refers to the behaviour of people, which they either bring in to or out of their roles at work. The study suggests that people withdraw or include themselves concerning their work based on a variety of dynamics and factors (Kahn, 1990). Employee engagement can be taken into account in various dynamics. Some of them being, as a multifaceted construct, devoted willingness, positive mindset and the adverse of emotional exhaustion. When Employee Engagement is taken into account as a multifaceted construct, it can be defined as a combination of positive attitude, behaviour and knowledge. When Employee Engagement is considered as devoted willingness, it can be defined as the initiative of an employee is working towards the success of an organization. When Employee Engagement is considered as a positive mindset, it can be defined as the enthusiasm, devotion and involvement that an employee has while working in his role. When Employee Engagement is considered as the adverse of emotional exhaustion, it can be defined as the energy, vigour, and dedication that the employee has when it comes to the employee's work (Sun, 2019).

There is also another construct that was explored or investigated by Deci and Ryan (1985), which distinguished between intrinsic and extrinsic motivation, which was built in one of their earlier works. Individuals are motivated to display behaviour crucial for their psychological health such as proficiency, individuality, autonomy and social or psychological connections. And if these requirements of psychological behaviour are fulfilled, it can lead to maximum performance, development, and function. These essential psychological behavioural demands have been discovered to be directly connected to employee dedication (Osborne and Hamoud, 2017).

2.3 Work Culture

Work Culture consists of certain descriptions of the structure of values, views or beliefs, behaviour, aims, and outcomes of the job, as well as any tool, processes. Technology and the dialect or language utilized. Culture is inextricably tied to the ideals and surroundings that lead to life's purpose and philosophy, which influences beliefs or attitudes and behaviours at the organization. Culture is formed by life experiences, practices, and the decision to approve or disapprove of the standards that exist in interactions or to place oneself in a specific work setting. (Khuzaeni et. al., 2013).

Efficiency or productivity is said to be an outcome of good work culture in an organization. The factors that affect or influence Work Culture are divided into two, they are internal factors and external factors. There are several factors under Work Culture. Some of them are

Innovation, Creativity (Kalairasi et. al., 2017), Changing market, Legal, Trends (T, 2018), Competitiveness (Kalairasi et. al., 2017), Organizational structure, Leadership, Social aspects (T, 2018) etc. Research has been done on some of these factors and it suggests that, if the relationship between these factors, if not all, some of the factors like innovation, creativity and competitiveness is positive, this impacts productivity too (Kalairasi et. al., 2017).

There are 3 factors that influence employee behaviour which are: national, occupational, and organizational culture. There are multiple dimensions under national culture, and they are power distance, uncertainty avoidance, individualism / collectivism and masculinity / femininity. These are values that are developed from the early stage of human life and are most likely to not change in the future. Among the other factors, organizational culture is one of the main factors that have the power to impact the performance or productivity of an organization. Organizational culture is the practices and beliefs of an organization that sets them apart from other organizations (Younis et al., n.d.).

2.4 Employee Engagement and Productivity

Employee Engagement is one of the main priorities of the management of an organization as it has a major impact on the performance of employees. This allows the management to pay attention to the employees, their skills and talents and guide them accordingly to improve their efficiency and hence improve the productivity of the organization. This also allows the employees to be more motivated while also providing them satisfaction.

Employee engagement is important for the employee and the company due to the slow collapse of the world's marketplace, which has resulted in a significant shift in the way enterprises are operated. Employees might use clauses in service agreements to obstruct the achievement of corporate aims and targets. Hence in any industry or business, the management's ability to use initiatives of employee engagement is critical. Employee Engagement has become one of the most difficult issues in today's business. Engagement will continue to be a difficulty for many businesses in the future due to complexity and rigorous rules. This element poses a problem because employee involvement is so important to the organization's health, resilience as well as revenue and profits. Organizations with Enhanced customer happiness, profitability and employee satisfaction, good teams and highly motivated employees and productivity make more revenue than the ones that don't have engaged employees. These are all the benefits of having highly engaged personnel. Hence, management should prioritize Employee Engagement (Osborne et. al., 2017).

Employee Engagement is linked to people's mental emotions or experiences that influence their behaviour and attitude. Employee Engagement is multi-faceted; involved or engaged individuals are socially, physically and intellectually invested in their everyday tasks. The duty of the company is to conduct adequate training and creating a purposeful work atmosphere. In exchange or response, the workers have the obligation to contribute meaningfully by performing according to the requirements of the company or business (Osborne et. al., 2017). Thus, based on the above statements and study, the first purpose of this research is:

H1: There is a relationship between Employee Engagement and Productivity of employees in the IT sector in India.

2.5 Work Culture and Productivity

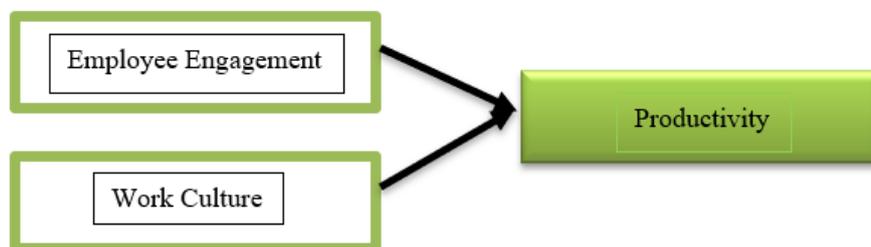
Many studies point out that the organizations that adopt great cultures, are said to encounter success in the future but this is possible only under particular conditions. The organization's values and beliefs mostly will be based on the founder's values and beliefs and hence will be a tedious task to change. These companies if they have strong culture are highly likely to succeed and if they exhibit weak culture in their organisation would most definitely not succeed (Chaubey et. al., 2012).

When leaders build a mentally healthy and safe work environment, a culture of ownership and participation emerges. To enhance employee engagement, companies must create a climate of trust in the company. Workers who are emotionally connected to the company are said to be engaged. If leaders show interest in helping the workers in gaining more knowledge and confidence, for example, by training the employees, this directly promotes engagement and has a significant impact on the employees. Hence, to affect the effectiveness and performance of a company, the organization should design trainings or knowledge programs that focuses on skills, that will help improve the employee's skills as well as the company's profits (Osborne et. al., 2017).

The culture of an organization includes a leader's basic values, beliefs, and observable conventions. It stated that a good business does not use diversity just to gain credibility with its client base, but also to develop cultural knowledge and respect through their varied staff environment. It also indicated that it is difficult to understand other cultures, but leaders must establish an environment in which all employees feel valued and involved. Healthy company culture helps to foster competitive workplaces and continual progress. As a result, leaders that promote a dynamic and safe corporate culture support their own and their colleagues' growth and progress (Osborne et. al., 2017). Thus, based on the above statements and study, the first purpose of this research is:

H2: There is a relationship between Work Culture and Productivity of employees in the IT sector in India.

Figure 1: Research Framework



3.0 Research Methodology

Philosophical perspectives help researchers determine which method to take and why, based on the research questions in the study. The philosophy of pragmatism is the foundation of this study (Guha Thakurta, et. al., 2020). The aim of pragmatism is on practicality and the emphasis on the importance of utilizing the best tools that can be used in the research. This method uses

both positivism and interpretivism. The research approach is a step-by-step plan that includes everything from general assumptions to specific data collecting, analysis, and interpretation procedures. As a result, it is determined by the nature of the study problem. In this study, the deductive approach will be implemented. The research is quantitative as the results rely on the data collected and the reasoning. The time horizon chosen for this study is the cross-sectional time horizon. This cross-sectional research is utilized to research the factors within a set limit of time. The type of data being used in this study is the primary data. This data is collected directly from the respondents through a survey or questionnaire.

3.1 Sampling

The target population of this study is the employees in IT Industry located in India. This will help in selecting the right group of respondents for the survey according to the need of the research. A 200 self-administered survey questionnaires were sent to the respondents via Google Forms Link and collected.

3.2 Instrumentation

The instrumentation is a tool that allows the researcher to gather data. The instrumentation that this study will be using to gather data is a questionnaire in the survey form. The questionnaire consists of four parts. The first part will be about the demographic information, the second part will be questions on one of the independent variables which is Employee Engagement, the third part of the questionnaire will also consist of the question relating to one of the independent variables which is Work Culture, and the final part of the questionnaire consists of questions on the dependent variable which is Productivity. These variables in the study will be tested for their hypotheses. The questionnaire mainly will be structured according to the 5 points Likert scale.

3.3 Data collection

The questionnaires were structured and created by the researcher and distributed. Only selected respondents were given the survey and the survey was divided into two parts. The first part consisted of the demographic information which mainly consisted of the personal information of the respondents like gender, age, state, position in the company etc. and the second, third and fourth parts consisted of questions that pertain to the independent (Employee Engagement and Work Culture) and the dependent variables (Productivity) and their relationship which addresses the impact of the independent variables on the dependent variables.

3.4 Data Processing and Analysis

Once the data is collected, it is analysed to test the hypotheses that were introduced in the earlier part. The data is checked for any duplicates and errors and then they are classified into sections into tables in excel. In this process, the data is analysed, tested and used to draw out conclusions. Descriptive data analysis is the type of analysis that will be taken up in this part of the research. The data analysis in the initial stage of this analysis is the most appropriate for the interpretation as it deals with large amounts of data that need to be evaluated.

4.0 Research Findings and Results

4.1 Reliability Analysis

The Reliability test is a tool for determining logical consistency and ensuring the questionnaire's accuracy. This research employed Cronbach's Alpha. It is one of the most widely applied methodologies for determining the correlation and assessing the internal reliability of a questionnaire made up of several Likert-type scales and questions, to produce a more comprehensive and precise survey. The overall evaluation of a measure's dependability is provided by the derived coefficient of reliability, which runs from 0 to 1. If all of the existing scales are completely unrelated to one another, then α is equal to 0. But if all of the existing scales have large covariances, then α is equal to 1 when the existing scales are near infinity (Goforth, 2015). In Table 1 below, reliability analysis has been done for both independent variables and the dependent variables relating to this research. As per the baseline laid out by Goforth (2015), as the value of α nears or is closer to 1, this shows that the correlation and reliability is better. The value of Cronbach's alpha ranges from 0.7 to 0.8 which is very close to 1. Therefore, it can be concluded that the questionnaire or survey is of greater reliability and is further useful for examination.

Table 1: Reliability Analysis

Variable of the study	No. of items	Cronbach's coefficient alpha
Employee engagement	8	0.778
Work Culture	8	0.769
Productivity	9	0.808

4.2 Descriptive Statistics

In this section, the main focus is on Employee Engagement and Work Culture which are the independent variables in the study. It consists of calculations of the independent variables Employee Engagement, Work culture and the dependent variable, Productivity. These calculations consist of the mean and standard deviation.

Table 2: Mean of all the Variables

Variable Name	Mean
Employee Engagement	2.1575
Work Culture	2.225
Productivity	2.416667

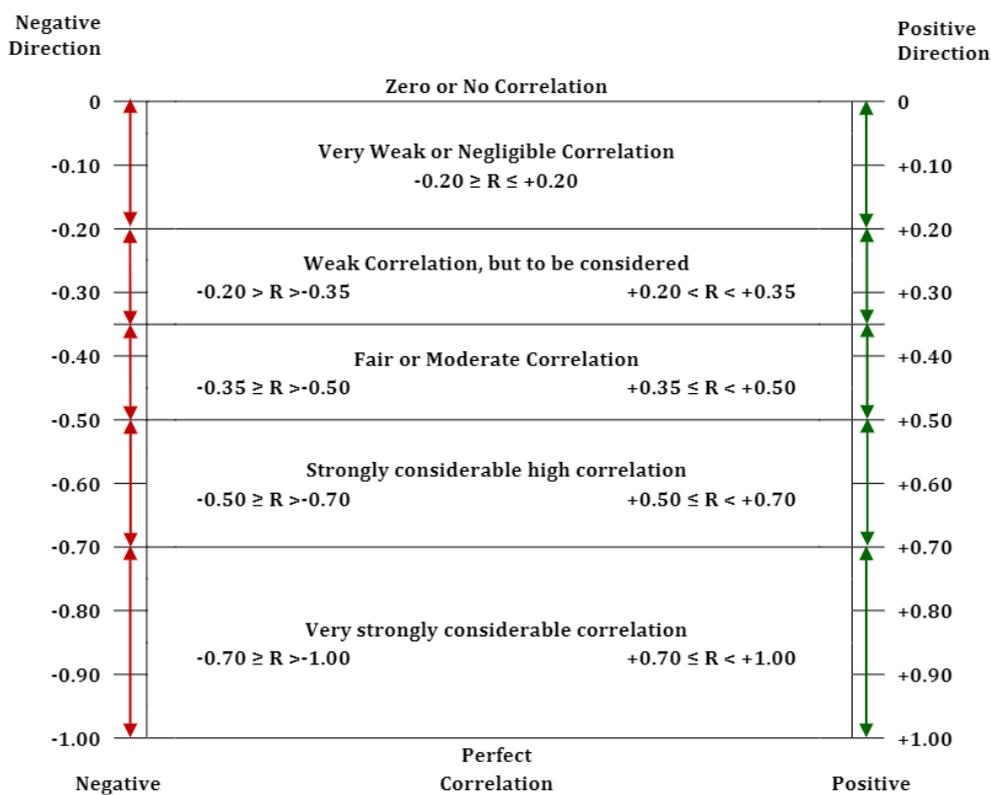
Table 2 displays the mean of all the variables considered in this study. The highest mean is for employee productivity in which, the mean = 2.41 and standard deviation= 1.301. the next highest mean is for work culture in which, the mean = 2.22 and standard deviation= 1.263. lastly, employee engagement has a mean = 2.15 and standard deviation =1.282. It can be said that the mean score for Employee Engagement and Work Culture is quite low, which shows that these factors are not highly given importance to in most of the IT companies in India. Productivity on the other hand shows a moderate mean value, which suggests that productivity

is positively influenced by better Employee engagement and Work Culture and that the IT companies in India have more room for advancement, when it comes to their improvement of productivity, Employee Engagement and Work Culture as a whole.

4.3 Pearson Correlation Coefficient

The correlation coefficient (r) is a metric that indicates or determines how closely two variables are related. The Pearson Product Moment and Spearman Rank Correlations are the two most common coefficients utilised in research (Senthilnathan, 2019). In this study, Pearson’s Simple Linear Correlation has been used to investigate the relationship association among the variables.

Figure 2: The Optimal range to understand Correlation Coefficient (Senthilnathan, 2019)



The coefficient of correlation will be used to identify the relationship as well as the direction or degree of the relationship. This is denoted by r and is in a range within -1 to +1. The relationship between the independent and dependent variables will be tested in this method. If the coefficient of r is positive, then it means that both the dependent and independent variables have an association. But if the coefficient of r is negative, then the association is negative. Finally, if the coefficient of r is 0, then there is no association between the variables.

Table 3: Pearson Correlation Test

Independent Variables	Pearson Correlation	Sig. (2 tailed)
Employee Engagement	0.551**	<0.001
Work Culture	0.664**	<0.001

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

Dependent variable: Productivity

As per Table 3, the correlation coefficient was analysed and tested to check the association between the independent variables, which is Employee Engagement and Work Culture and the dependent variable, which is Productivity. The coefficient of correlation will be used to identify the relationship as well as the direction or degree of the relationship and hence we need to identify the r value for both the independent variables. The r-value for Employee Engagement is $r=0.551$ and the r-value for Work Culture is $r=0.664$. As discussed above, if the value r is positive, then there is a strong association between the variables. Hence as the values of r are positive for both Employee Engagement and Work Culture, it can be said that they have a strong correlation with the dependent variable, which is productivity. Comparing the r-value of both the independent variables, we can say that Work Culture has a stronger degree of association with the dependent variable than Employee Engagement.

The value for significance 2-tailed also is evaluated as it shows that statistically significant association between the variables. The correlation is significant at 0.01. The P-value we have as listed in the above table is <0.001 . Hence when P-value is less than 0.01, the relationship between the variables is significant. Hence, we can conclude that there is a significant relationship between Employee Engagement, Work Culture and Productivity. Summarizing the analysis, it can be concluded that both Employee Engagement and Work Culture have a great influence on the Productivity of employees.

4.4 Multiple Regression Analysis

Multiple Linear Regression is utilized when there are two or more factors in play. This helps in looking at how many independent variables interact to affect the dependent variable. Multiple Linear Regression can evaluate and understand the relation between the dependent variable and two or more independent variables. The relationship can linear or non-linear (Aggarwal, 2020). The study will utilise Multiple Linear Regression the same way to evaluate and analyse the relationship between the dependent variable and the to independent variables of this study. The dependent variable being Productivity and the independent variables being Employee Engagement and Work culture.

This method will hence be utilized to understand if the independent variables, which is Employee Engagement and Work Culture have a notable influence on the dependent variable, which is Productivity. This will allow us to try and test out our hypothesis. The below Tables 17, 18 and 19 displays an explicate view on the Multiple Regression Analysis that was run in SPSS. This will allow us to fulfil the objectives of this study.

Table 4: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.671 ^a	.450	.439	5.525

a. Predictors: (Constant), Work Culture, Employee Engagement

Table 4 displays the model summary of the overall statistics. This shows that the value of $R=0.671$, the value of the adjusted R square of the model is 0.439 and the value of $R^2=0.450$. The R square and R are very important values that help us in analysing if the model fits and according to the values represented in the table, where $R=0.671$, it can be said that there is a strong association between the independent variables and dependent variable. This shows that the dependent variable, which is productivity has a strong relationship with its independent variable, which is Employee Engagement. The percentage of influence the independent variables have on the dependent variables in this study is hence 45%. This derives that the independent variables in this study share a value of 45% in its influence on productivity. While the rest of the 55% is estimated to be the percentage of influence by other variables that are not associated with this study.

Table 5: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2668.427	2	1334.213	43.712	<.001 ^b
	Residual	3265.946	107	30.523		
	Total	5934.373	109			

a. Dependent Variable: Productivity

b. Predictors: (Constant), Work Culture, Employee Engagement

Table 5 shows how the ANOVA helps understand whether the model is sufficient or not. In Table 5, the value of $F=43.712$. This is significant as the P-value which is less than 0.05 is considered to be significant, and the value of P in the above table is <0.001. This shows that there is a significant association between the dependent and independent variables. Looking at the statistics, we can conclude that Employee Engagement and Work Culture have a significant influence on Productivity. And as Table 11, does not clearly show the impact each independent variable has on the dependent variable, we have to analyze the table of Coefficients. As shown in Table 6, the value of each independent variable's coefficient indicates the magnitude of the influence that variable has on productivity which is the dependent variable, and the sign of the coefficient (+ or -) indicates the effect's direction. When analyzing, one independent variable is added to a regression, the coefficient indicates how much the dependent variable is anticipated to grow or reduce, when the independent variable is increased by one.

Table 6: Coefficient Table

		Coefficients^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	7.198	1.662		4.331	<.001
	Employee Engagement	.161	.121	.140	1.330	.186
	Work Culture	.662	.124	.561	5.330	<.001

a. Dependent Variable: Productivity

When using several independent variables in a regression, the coefficient indicates how much the dependent variable is anticipated to grow when one of the independent variables is increased while the others remain constant. This is calculated using the following formula:

$$Y = m_1X_1 + m_2X_2 + b$$

Where Y is the dependent variable, m1 and m2 are the magnitude of the influence that independent variables will have on the dependent variable, b is the constant and X1 and X2 are the independent variables.

The equation hence can be written as follows:

$$\text{Productivity} = 0.161(\text{Employee Engagement}) + 0.662(\text{Work Culture}) + 7.198$$

As per the above equation,

- When the value of Employee Engagement becomes greater by one unit, by keeping the other independent variable (Work Culture) in this study constant, the value of the productivity of the employees is going to increase by 0.161 and contrariwise.
- As and when the value of Work Culture becomes greater by one unit, by keeping the other independent variable (Employee Engagement) in this study constant, the value of the productivity of the employees is going to increase by 0.662 and contrariwise.

The Beta coefficient can also be utilized to evaluate the influence of the independent variables on the dependent variable. This can be done by evaluating if the P-value <0.05. Employee Engagement has a Beta value=0.140 and Sig=0.186. And because P-value is 0.186, which is greater than 0.05, Employee Engagement does not have a major impact on the dependent variable, which is productivity. Work Culture on the other hand has a Beta Value=0.561 and Sig<0.001. Hence, as P<0.05, Work culture has a major impact on the productivity of the employees in the IT sector in India.

According to the analysis done in the regression analysis, the P-value for Employee Engagement is greater than 0.05 and from the Pearson Correlation analysis, the r-value is 0.5. Hence, as per the statistics, the null hypothesis was accepted for Employee Engagement. Lastly, according to an analysis done in regression, the p-value for Work Culture is less than 0.05 and the r-value from the Pearson's Correlation analysis is 0.6. Now as per the statistics, this shows that we should accept the alternate hypothesis and that there is a strong relationship between Work Culture and Productivity.

5.0 Discussion

The first factor this study analysed was Employee Engagement, which is to understand the relationship between Employee Engagement and Productivity, and its impact or influence on the employees' productivity in the IT Industry in India. According to the results, from the analysis done in SPSS, there is no strong degree of affiliation between Employee Engagement and Productivity. As per the statistics or analysis, it shows that the P-value >0.05 at a confidence interval of 95%. This shows that Employee Engagement has no major impact on the Productivity of an employee in the IT Industry in India. Hence, the null hypothesis was accepted while the alternate hypothesis was rejected. Most of the studies conducted previously on the impact of employee engagement on productivity has shown that there is a strong impact. But this study is not in line with other researches. According to the survey responses, it shows that there is no Employee Engagement that does not have a strong impact on productivity of employees. As a result, employee engagement has a significant influence on the productivity of the company (Patro, 2013). Another study conveys that Employee Engagement is the intangible energy that drives people to achieve at higher levels. This study finally showed that the greater the engagement at work, the higher the earnings per share will be for the companies (Sarangi & Nayak, 2016).

The second factor this study analysed was the Work Culture, which is to understand the relationship between Work Culture and Productivity, and its impact or influence on the employees' productivity in the IT Industry in India. According to the results, from the analysis done in SPSS, we understand that there is a very strong degree of affiliation between Work Culture and Productivity. As per the statistics or analysis, it shows that the P-value <0.05 at a Confidence Interval of 95%. This shows that Work Culture has a major influence or impact on the Productivity of employees in the IT Industry in India.

This study agrees or is in line with other studies that have been conducted to test the relationship between Work Culture and Productivity. A study conducted in Singapore, on the effects of Organizational Culture on employee performance in the telecommunication industry, shows that Organizational culture such as traditions, values and idols has a major influence on employee productivity, whereas emblems or signifiers have little influence. This study established that having traditions in a workplace has a significant and beneficial influence on employee productivity (Paschal & Nizam, 2016). Another study states that Collaborative working settings, on the other hand, relate to a high-spirited workplace with a group centred approach, where the workers and the organization have an empathic connection that promotes an employee's cognitive and emotional health. It showed that social exclusion, bullying, and abuse have negative effects on employee performance. It also shows that occupational or work stress is a major intermediary between workplace culture and Performance. Lastly, they concluded that businesses must eliminate hazardous workplace elements (Anjum et. al., 2018). This shows that this study is in line with most of the research that concludes that Work Culture influences productivity majorly.

5.2 Implications of Study

From a theoretical point of view, the research has major implications. It has added to the knowledge or literature about the impact of two of the major factors on the productivity of employees in the IT Industry in India. The study examines if Employee Engagement and Work Culture influence productivity. There have been multiple research done on the other factors under these major topics and their impact on performance but the research that consists of these

two major factors in this study, which are Employee Engagement and Work Culture is only a few. And hence, this study will add more information to the literature and also help companies in putting more importance on employee engagement and better work culture initiatives, which will eventually produce more profits and better outputs for the organization. From a practical standpoint, this research has major implications. This study can assist companies in recognizing the relevance of each factor, which are Employee Engagement and Work Culture and their impact on employee productivity. This study will presumably encourage companies in focusing on Employee Engagement and Work Culture in their companies.

5.3 Limitations

There are a lot of limitations when it comes to the research conducted. This research has a lot of limitations with respect to the samples collected, the time limit, the findings etc. Firstly, If more samples or responses were collected, the researcher would be able to draw a more strong conclusion on Employee Engagement and Work Culture. The questionnaire consisted of very few open-ended questions and mostly close-ended questions. The time limit for this study was 7 months which did not allow enough time to gather more information. Also, the questionnaire was distributed among various IT employees, from various companies and was not focused on certain companies, which again blurs our understanding when it comes to the findings. The fact that this still gives strong outputs shows that organizations should prioritise employee engagement and work culture as one of their top priorities.

5.4 Recommendations

The recommendation for future researchers is to secure more time and responses from participants for their research, provide more open-ended questions and distribute at least 500 surveys, to receive at least 200 responses. This will provide them with more efficacy in outputs. This study only focuses on two factors affecting productivity in the IT Industry in India. Future researchers can focus more on other factors along with Employee Engagement and Work Culture and their effects on productivity. There is a lot of research being done in this area, but more attention has to be paid to cultural concerns and employee engagement, as well as developing metrics to assess them. These characteristics may be incorporated into the organizational culture to help the organization achieve its strategic goals and improve its long-term viability. With the organizational objective in mind, a more realistic and cautious HR strategy should be implemented to inculcate better engagement and culture in the organization. The employee can be encouraged to engage by providing them with a larger platform to get involved in decision making and other aspects of their job. This will also improve the Work Culture in the organization. Some of the main aspects that can be improved to cater to the improvement of Employee Engagement and Work Culture and in turn their impact on productivity are as follows:

1. The employees should be treated with respect no matter their position in the company and without discrimination.
2. The management should be transparent with the employees about every aspect.
3. Provide appropriate recognition for the hard work.
4. Care and provide help when it comes to the mental and physical health of the employees
5. Help the employees have a steady work-life balance.
6. Provide them with the necessary training to upskill themselves and also encourage them in their career aspirations. Etc.

6.0 References

- 12 Factors Affecting Productivity in an Organization. (2015). Bank of Information. <http://bankofinfo.com/factors-affecting-productivity-in-an-organization/>
- Aggarwal, S. (2020, May 13). Multiple Linear Regression. Corporate Finance Institute. <https://towardsdatascience.com/multiple-linear-regression-8cf3bee21d8b>
- Aktar, S. et. al. (2012). The Impact of Rewards on Employee Performance in Commercial Banks of Bangladesh: An Empirical Study. IOSR Journal of Business and Management, 6(2), pp.9–15. <http://iosrjournals.org/iosr-jbm/papers/Vol6-issue2/B0620915.pdf>.
- Anjum, A. et. al. (2018). An Empirical Study Analyzing Job Productivity in Toxic Workplace Environments. NCBI. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5982074/>
- Author, G. (2019). 5 Critical Factors Affecting Employee Productivity at Work - Sage HR Blog. Sage HR Blog. <https://blog.sage.hr/5-critical-factors-affecting-employee-productivity-at-work/#:~:text=5%20Critical%20Factors%20Affecting%20Employee%20Productivity%20at%20Work>
- Avery, N. (2017). How Goal Setting Increases Your Productivity. PROBLOGGER. <https://problogger.com/goal-setting-increases-productivity/#:~:text=Goal-setting%20is%20a%20key%20tool%20to%20increase%20productivity>
- Bhandari, P. (2021, March 2). An introduction to inferential statistics. Scribbr. <https://www.scribbr.com/statistics/inferential-statistics/>
- Bhimashankar Tengli, M. (2020, August 27). Blog 132-Research Onion: A Systematic Approach to Designing Research Methodology | | Welcome to AESA. Agricultural Extension in South Asia. <https://www.aesanetwork.org/research-onion-a-systematic-approach-to-designing-research-methodology/>
- Chand, S. (2013). Growth of Information Technology (IT) Industry in India. Your Article Library. <https://www.yourarticlelibrary.com/industries/growth-of-information-technology-it-industry-in-india/19668>
- Chaubey, D et. al. (2012). Impact Of Organization Culture on Employee Motivation And Job Performance. International Journal of Research in commerce and management. https://www.researchgate.net/publication/280529193_Impact_Of_Organization_Culture_On_Employee_Motivation_And_Job_Performance
- Chow, A. (2020). How Technology is Here to Help During the COVID-19 Pandemic – Technology is Here to Help. https://about.att.com/innovationblog/2020/04/covid_19_technology.html.
- Davis, B. (2021, May 15). What is data coding in research? – Mvorganizing.org. Mvorganizing.Org. <https://www.mvorganizing.org/what-is-data-coding-in-research-2/>
- Deodhar, S. (2015). Employee Productivity and McGregor’s Theory of X & Y. People Matters. <https://www.peplematters.in/blog/life-at-work/employee-productivity-and-mcgregors-theory-x-y-11406>
- Donaldson, C. (2017). What are the 3 best ways to improve employee engagement?. Inside HR. <https://www.insidehr.com.au/3-best-ways-improve-employee-engagement/#:~:text=There%20are%20three%20key%20factors%20HR%20leaders%20shou>ld
- Donohoe, A. (2011). The Effects of Lack of Employee Training. Bizfluent. <https://bizfluent.com/info-8454475-effects-lack-employee-training.html>.

- Dorgan, S. J. et al. (2006). The link between management and productivity. <https://www.ucipfg.com/Repositorio/MAP-EN/Introduction%20to%20Management/Materials/The%20link%20between%20managers%20and%20productivity.pdf>.
- Duru, C. and Shimawua, D. (2017). The effect of work environment on employee productivity: A case study of Edo City Transport services Benin city, Edo State Nigeria. European Journal of Business and Innovation Research. <https://www.eajournals.org/wp-content/uploads/The-Effect-of-Work-Environment-on-Employee-Productivity-A-Case-Study-of-Edo-City-Transport-Services-Benin-City-Edo-State-Nigeria.pdf#:~:text=From%20the%20different%20ideas%20gotten%20about%20the%20effect>
- Evans, L. (2018). This is how competition affects your brain, motivation, and productivity. Fast Company. <https://www.fastcompany.com/90240826/this-is-how-competition-affects-your-brain-motivation-and-productivity#:~:text=While%20a%20competition%20can%20be%20a%20great%20way>
- Giga, I. S. and Hoel, H. (2003). Violence and stress at work in financial services. ResearchGate. https://www.researchgate.net/publication/254406982_Violence_and_stress_at_work_in_financial_services
- Goforth, C. (2015, November 16). Using and Interpreting Cronbach's Alpha | University of Virginia Library Research Data Services + Sciences. Research Data Service + Sciences. <https://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/#:~:text=Cronbach%E2%80%99s%20alpha%20is%20a%20measure%20used%20to%20assess,way%20of%20measuring%20the%20strength%20of%20that%20consistency>.
- Groysberg, B. et. al. (2018). The Leader's Guide to Corporate Culture. Harvard Business Review. <https://hbr.org/2018/01/the-culture-factor>
- GuhaThakurta, S. and Chetty, P (2020, February 7). Understanding research philosophy. Project Guru. <https://www.projectguru.in/research-philosophy/>
- Heryati, R. (2018). 10 Factors Contributing to Employee Engagement. The 6Q Blog. <https://inside.6q.io/10-factors-contributing-employee-engagement/>.
- Herzberg's Motivation Theory -Two Factor Theory. (2019). Expert Program Management. <https://expertprogrammanagement.com/2018/04/herzbergs-two-factor-theory/>
- Hussain, F. (2017). Business Process Management and its impact Over Organizational Productivity. TaskQue. <https://blog.taskque.com/business-processes-and-cultural-impact-over-productivity/#:~:text=Managing%20your%20business%20processes%20in%20an%20efficient%20manner>
- Janse, B. (2019). Cultural Web Analysis. ToolsHero. <https://www.toolshero.com/management/cultural-web-analysis/>.
- Jena, A. (2019, January 21). Research methodology and different research approaches. Project Guru. <https://www.projectguru.in/research-methodology-and-approaches/>
- Juneja, P (2015). Work Culture - Meaning, Importance & Characteristics of a Healthy Culture. Management Study Guide. <https://www.managementstudyguide.com/work-culture.htm>.

- Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. Academy of Management. [https:// www.talenteck.com/academic/Kahn-1990.pdf](https://www.talenteck.com/academic/Kahn-1990.pdf)
- Kahn, W.A. (1990). PSYCHOLOGICAL CONDITIONS OF PERSONAL ENGAGEMENT AND DISENGAGEMENT AT WORK. SCRIBD. <https://www.scribd.com/document/327997881/Kahn-1990-Psychological-Conditions-of-Personal-Engagement-and-Disengagement-at-Work>
- Kalaiarasi, Ms & Sundaram, Sethuram. (2017). Literature Review on Organization Culture and Its Influence. ResearchGate. https://www.researchgate.net/publication/326972813_Literature_Review_on_Organization_Culture_and_Its_Influence
- Khuzani et. al. (2013). The Influence of Work Culture, Work Stress to the Job Satisfaction and Employees Performance in the State Treasury Service Office in Jakarta, Indonesia. IOSR Journal of Business and Management, 9(2), 49–54. <https://doi.org/10.9790/487x-0924954>
- Krugman, P. (1994). DEFINING AND MEASURING PRODUCTIVITY. <https://www.oecd.org/sdd/productivity-stats/40526851.pdf>.
- Li Sun (2019). (PDF) Employee Engagement: A Literature Review. ResearchGate. https://www.researchgate.net/publication/330139773_Employee_Engagement_A_Literature_Review.
- Luenendonk, M. (2014). How to Design and Implement an HR Strategy. CLEVERISM. <https://www.cleverism.com/design-implement-hr-strategy/#:~:text=By%20solidifying%20the%20company%E2%80%99s%20short%20and%20long%20term>
- Luxton, E. (2016). Does working fewer hours make you more productive?. World Economic Forum. <https://www.weforum.org/agenda/2016/03/does-working-fewer-hours-make-you-more-productive>.
- May, D. R. et. al. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. Journal of occupational and organizational psychology, 77(1), 11-37. <https://doi.org/10.1348/096317904322915892>
- Miller, S. (2015). Employers See Wellness Link to Productivity, Performance. SHRM. <https://shrm.org/ResourcesAndTools/hr-topics/benefits/Pages/wellness-productivity-link-.aspx#:~:text=Wellness%20%E2%80%98value%20proposition%E2%80%99%20includes%20higher%20engagement%20and%20morale%2C>
- Model, S. (2019). How to Use Two Factor Theory to Improve Employee Engagement. SlideModel. <https://slidemodel.com/how-to-use-two-factor-theory-to-improve-employee-engagement/>.
- Narayan, L. (2019). Employee engagement: How much has changed in India, in the past five years?. HR Katha. <https://www.hrkatha.com/special/employee-benefits-and-engagement/employee-engagement-how-much-has-changed-in-india-in-the-past-five-years/#:~:text=In%20India%2C%20there%20are%20maximum%20number%20of%20employees>
- Osborne, S. and Hammoud, M. (2017). Effective Employee Engagement in the Workplace. International Journal of Applied Management and Technology. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=1239&context=ijamt>.
- Paschal, O. A. and Nizam, I. (2016). Effects of Organisational Culture on Employees Performance: Case of Singapore Telecommunication. International Journal of Accounting &

https://www.researchgate.net/publication/316537019_Effects_of_Organisational_Culture_on_Employees_Performance#:~:text=The%20results%20of%20the%20study%20showed%20that%20three,culture%20has%20an%20insignificant%20influence%20on%20job%20performance.

Patro, S. C. (2013), The Impact of Employee Engagement on Organization's Productivity. ResearchGate.

https://www.researchgate.net/publication/281967834_The_Impact_of_Employee_Engagement_on_Organization's_Productivity

Pelis, S. (2018). How useful are our productivity measures?: Literature review. Ministry of Business, Innovation & Employment.

<https://www.mbie.govt.nz/assets/b768295f2f/productivity-measurement-literature-review.pdf>

Saks, A. (2006). Antecedents and consequences of employee engagement. Journal of managerial psychology, 21(7), 600-619. <https://doi.org/10.1108/02683940610690169>

Sarangi, P and Nayak, B. (2016). Employee Engagement and Its Impact on Organizational success – Study in Manufacturing Company, India. Journal of Business Management. <https://iosrjournals.org/iosr-jbm/papers/Vol18-issue4/Version-1/G1804015257.pdf>

Saunders, M. et. al. (2019). "Research Methods for Business Students" Chapter 4:

Understanding research philosophy and approaches to theory development. ResearchGate.

https://www.researchgate.net/publication/330760964_Research_Methods_for_Business_Students_Chapter_4_Understanding_research_philosophy_and_approaches_to_theory_development

Sehgal, K. and Chopra, D. (2019). Stanford professor: Working this many hours a week is basically pointless. Here's how to get more done—by doing less. CNBC.

<https://www.cnbc.com/2019/03/20/stanford-study-longer-hours-doesnt-make-you-more-productive-heres-how-to-get-more-done-by-doing-less.html#:~:text=In%20his%20research%2C%20economics%20professor%20John%20Pencavel%20found.>

Senthilnathan, Samithamby. (2019). Usefulness of Correlation Analysis. SSRN Electronic Journal. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3416918

Smith, T. (2020). Employee Engagement. Investopedia.

[https://www.investopedia.com/terms/e/employee-engagement.asp.](https://www.investopedia.com/terms/e/employee-engagement.asp)

T, P. (2018, December 19). Top 8 External Factors Affecting Business Environment. Essays, Research Papers and Articles on Business Management.

<https://www.businessmanagementideas.com/business-environment/factors-affecting-business-environment/top-8-external-factors-affecting-business-environment/18602>

Younis, I. et. al. (n.d.). A Review Paper on Organizational Culture and Organizational Performance. International Journal of Business and Social Science.

[http://ijbssnet.com/journals/Vol. 1 No. 3 December 2010/4.pdf.](http://ijbssnet.com/journals/Vol. 1 No. 3 December 2010/4.pdf)

For instructions on how to order reprints of this article, please visit our website: <https://ejbm.apu.edu.my/>

©Asia Pacific University of Technology and Innovation