

# An Analytic Study of The Relationship Between Internet Connectivity and Productivity in The Workplace

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## Abstract

In the present study, the effect of the use of the Internet and digital technology in business has been discussed. From the study, It is clear that the slow connectivity and the lack of experience are the issues how far the internet connectivity is concerned. The employment of skilled and expert employees in the business is one of the most vital influences for the growth of the business products.

The primary quantitative method has been used in the study with responses of the 75 people. The SPSS software also used in the research for the better analysis of the result. Statistical analysis through SPSS software has been done to evaluate the effects of technology on employee learning outcomes. The significant value less than 0.05 has denoted the independent variables are highly signified with Dependent Variables.

Internet connectivity has a mixture of different factors that can be utilised to boost productivity at the workplace. Recently, globalisation has been revealed to progress contest, and trades require manners to build an acceptable benefit. It is concluded that the workplace productivity is the extreme time hired by employees to manage and deliver choice consequences. In a competitive atmosphere in the workplace, satisfactory productivity has been expanded by keeping adequate resources.

**Keywords:** Digital technology, internet connectivity, workplace culture, Productivity.

## 1. Introduction

There are various kinds of factors that affected the culture and environment of the workplace. As per the recommendation of Melović et al. (2020), in present days, the use of modern and innovative tools and technology in the workplace is helpful for the enhancement of the rate of the productivity of the items. Internet connectivity is one of the tools that help businesses increase productivity by using different methods and techniques. As per the view of Veile et al. (2020), the flexibility in the internet connection and the use of the internet in the workplace improve the quality of work. Thus, the proper internet connection in the workplace is effective for the growth of a business.

The organisations face some issues and problems in order to implement internet connectivity in the workplace. As per the opinion of Cimini et al. (2020), the lack of skilled and experienced employees in the workplace makes internet connectivity less effective for the business. Internet hacking is one of the most common problems in the present day. The unorganized use of the Internet in the workplace made a bad effect on the productivity of business items.

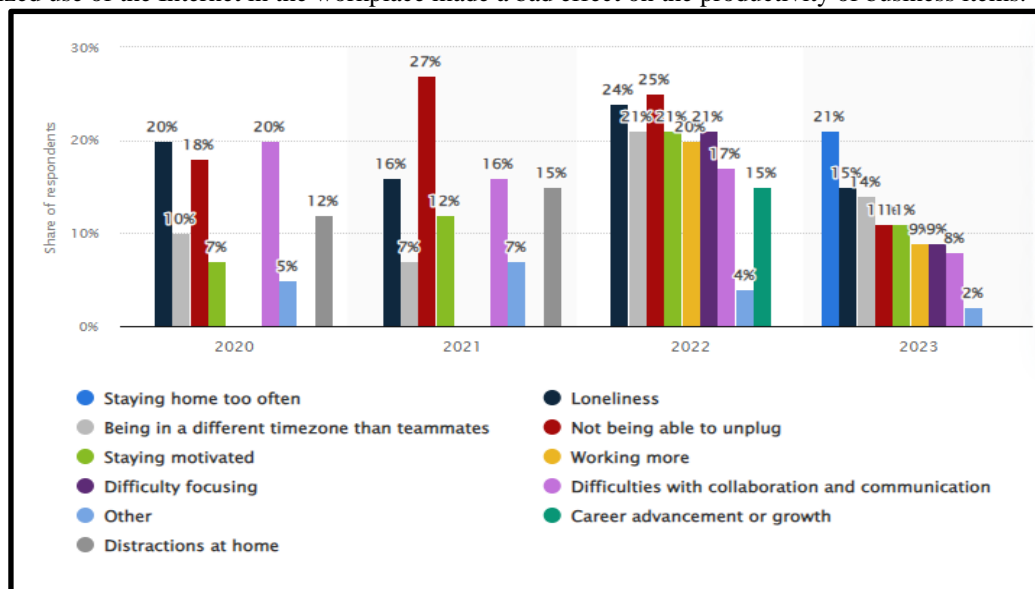


Figure 1: Number of the internet users

(Source: Haseeb et al. 2019)

From the above figure, it can be shown that most of the remote areas are currently used the Internet in the workplace and the percentage of the use of the Internet is 74%. The use of the internet and hybrid model in the rural area is 33%. 42% of the business in the remote area are recent works on the application of the hybrid model.

The aim of the research is to evaluate the impact of the Internet in the rate of the production of the business.

The objectives of the research are:

**RO1:** To determine the effect of Internet use in the business workplace

**RO2:** To estimate the issues of the use of the internet in order to the productivity

**RO3:** To determine the process of the adaptation of innovative technology in the workplace

**RO4:** To find the future development of the application of digital and internet technology in the business

**RQ1:** What is the effect of Internet use in the business workplace?

**RQ2:** What are the issues of the use of the internet in order to productivity?

**RQ3:** What is the process of adaptation to innovative technology in the workplace?

**RQ4:** What is the future development of the application of digital and internet technology in business?

## 2. Literature Review

### Effect of Internet use in the business workplace

Internet addiction in the business workplace increases the rate of productivity and profit of a business. As per the view of Guinan, Parise, & Langowitz (2019), the proper application of the Internet is the most useful and effective for any kind of business to increase the rate of production. The recruitment of experienced and skilled employees in the business is one of the most vital factors for the growth of the business products. The use of cloud computing using the internet is the most effective for managing the storage and the various kinds of work of a organization. As per the view of Obrenovic et al. (2020), assessing pornographic sites in the workplace is one of the most beneficial and effective for the growth and development of the production of a business. Thus, the use of the Internet in business is helpful for the increment of the productivity of the organisation.

### Issues of the use of the Internet in order to the productivity

In business, the employees who hog bandwidth, who is less skilled face issues and problems in order to handle the internet in the workplace. As per the view of Pan et al. (2022), the lack of experienced and skills to handle the internet and digital technology is one of the most common issues in the business. The network issue is also lagging behind the capacity of the workers in the business in the rural and also the urban area.

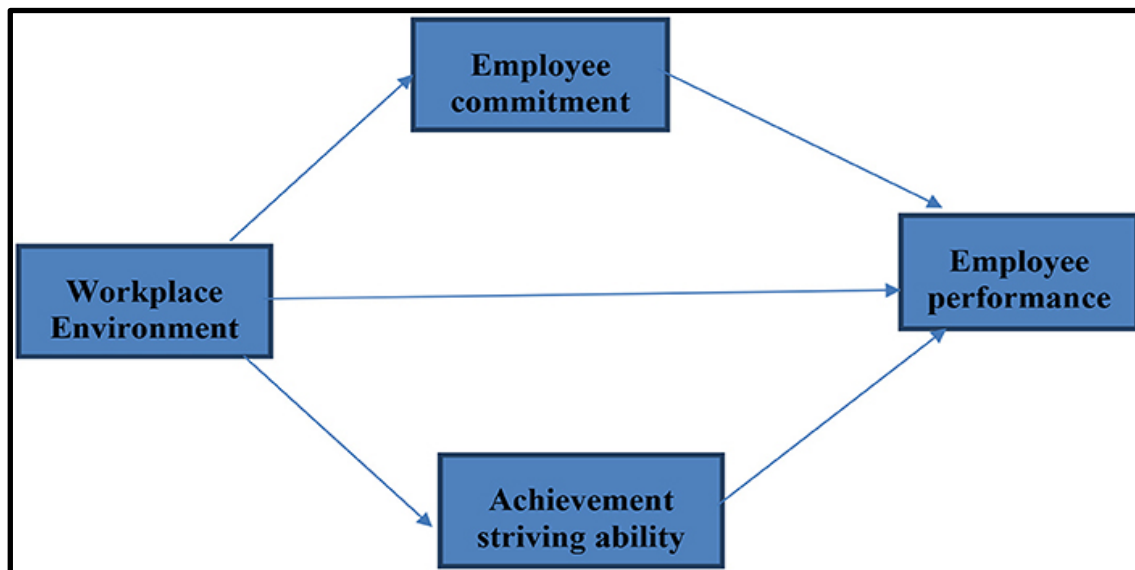


Figure 2: Impact of internet usage in the workplace environment

(Source: Shin, & Kang, 2020)

The above figure shows the effect of the use of internet connectivity in the business workplace in the different sectors. The proper recruitment of employees in the business is the most required for any kind of organisation. The achievement of the striving ability of the workers can be improved by the increment of the quality of the performance of the employees. As per the view of Shin, & Kang (2020), the performance of the workers is the main asset for the betterment of the work environment.

### Process of the adaptation of innovative technology in the workplace

The organisation uses different kinds of effective processes affected by the implementation of innovative and modern technology in the workplace. According to Leonardi (2021), recruiting volunteers who are efficient in the

technology survey is beneficial for the increment of the productivity of a business. Adequate training of the employees makes the employees more efficient for work and that increases the productivity of the industry. On the other hand, Chanana, & Sangeeta (2021) said that the employee's willingness of learning new technology is an important factor for the development of a business. Therefore, the above factors are useful for the adaptation of technology in a business.

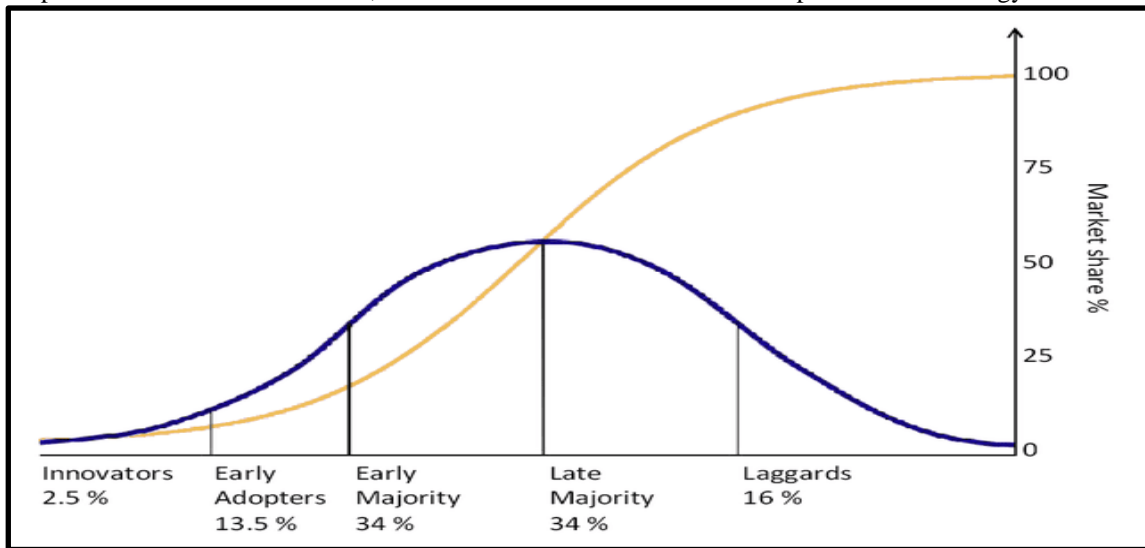


Figure 3: Technology adoption Curve

(Source: Chanana, & Sangeeta, 2020)

The above figure shows that the percentage of the early majority is 34% and laggards is 16%. Hence, the proper communication with the employees of a business is the most effective for the implementation of innovative technology in a business.

### 3. Methodology

The primary quantitative method has been used in the study to determine the effect of the use of internet connectivity in the business. As per the opinion of (), the proper application of the method is helpful for the analysis of the result and outcome of a study. The SPSS software has been used in the research taking the response from 75 people. The use of the regression, reliability, and validity test in the research increases the quality of the work of the study. Therefore, the application of the method helps to find the proper strategies for the use of the internet in case of the productivity of a business.

### Findings

#### Demographic Analysis

##### Gender Class

What is your gender?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	38	50.7	50.7	50.7
	Male	29	38.7	38.7	89.3
	Prefer not to say	8	10.7	10.7	100.0
	Total	75	100.0	100.0	

Table 1: Frequency of gender class

The above table has enunciated the gender of the respondents who experienced this survey questionnaire. From the above table, it has been shown that there is the highest frequency of participants in the female group and the frequency is 38 out of a total of 75. The male group has shown an average frequency, which is 29. The least frequency is 8, which is shown by a few people who have not revealed their identity.

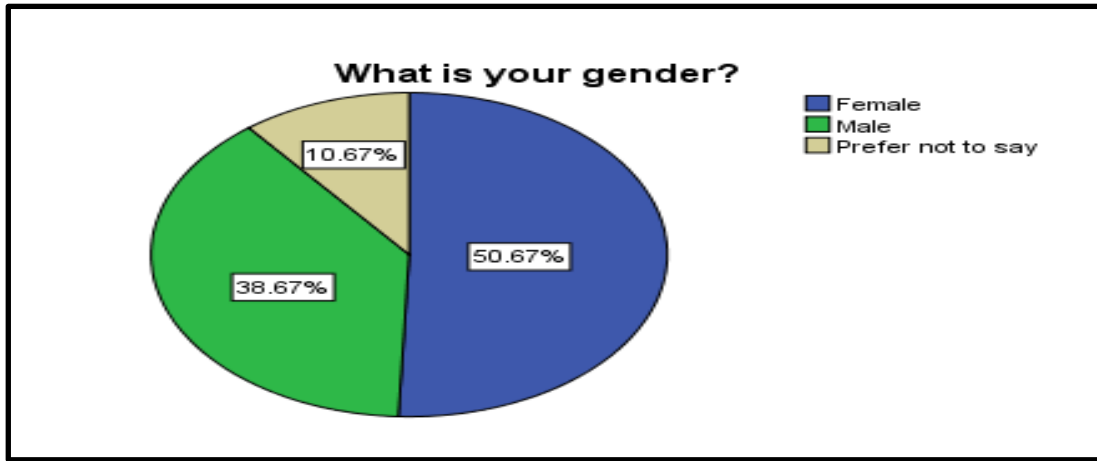


Figure 4: Percentage of gender class

The above figure has illustrated the percentage rate of the participants who experienced the survey. From the above figure, it has been displayed that the highest percentage portraying gender group was female and the percentage is calculated as 50.67%. On the other hand, 38.67% of the total participants are male. However, 10.67% of participants have not disclosed their identity.

**Age Group**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-30 Years	31	41.3	41.3	41.3
31-40 Years	22	29.3	29.3	70.7
41-50 Years	15	20.0	20.0	90.7
Above 50 Years	7	9.3	9.3	100.0
Total	75	100.0	100.0	

Table 2: Frequency of age group

The above table has expressed the age of the respondents who partook in this survey. From the above table, it has been exhibited that there is the highest frequency of participants are from 18 to 30 years old age levels and the frequency is 31. 31-40 years old participants were having a frequency which is 22. 15 frequency holding participants are from the 41-50 years old age class. The lowest frequency is 7 which was held by the participants whose ages were above 50 years.

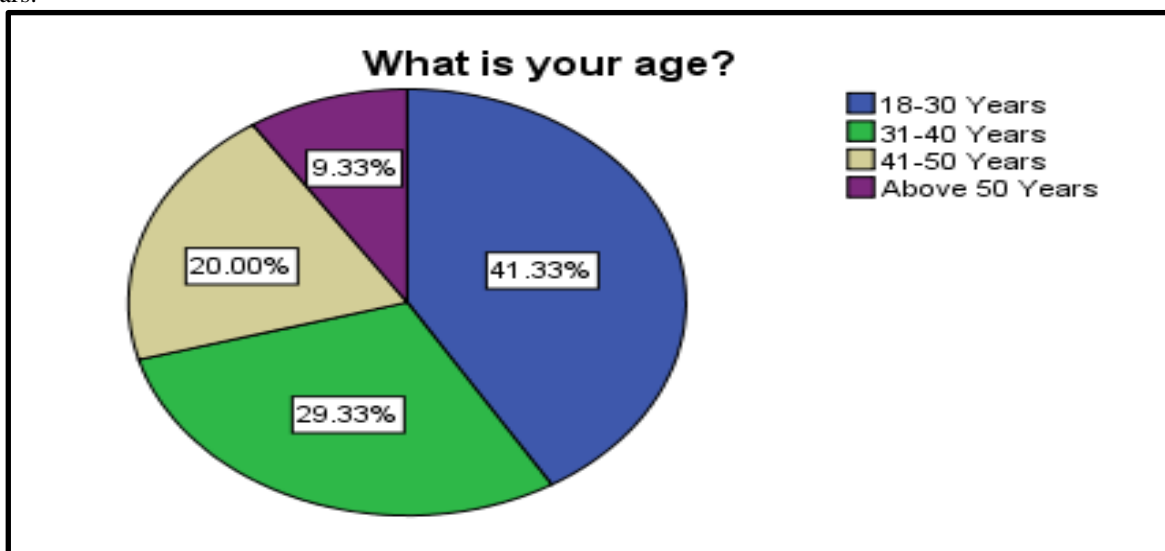


Figure 5: Percentage of age group

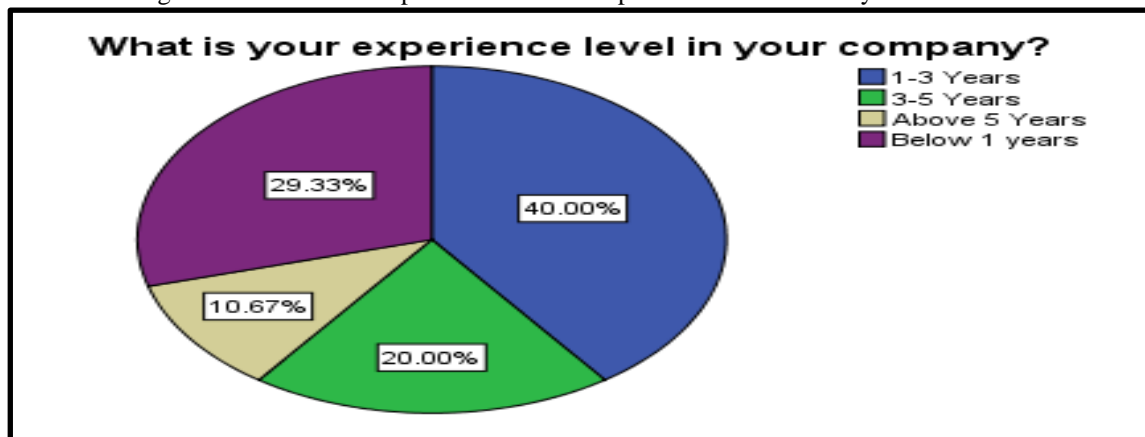
The above figure has helped to identify the response rate of the participants. Therefore, the maximum response rate of participants belonged between the 18-30 years age group, and their response rates were 41.33%. However, the lowest response rate is above 50 years of age group and their response rate is 9.33%.

**Experience Level**

What is your experience level in your company?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-3 Years	30	40.0	40.0	40.0
	3-5 Years	15	20.0	20.0	60.0
	Above 5 Years	8	10.7	10.7	70.7
	Below 1 years	22	29.3	29.3	100.0
	Total	75	100.0	100.0	

**Table 3: Frequency of experience level**

The above figure has depicted the experience level of the participants in their company. As per the above table, 1-3 years of experienced participants have held the highest frequency which is 30. 15 participants are 3-5 years of experience in their organisation. A lot of respondents have an experience with below 1 year which is 22.



**Figure 6: Percentage of experience level**

The above figure has expressed the percentage of the experience level of the participants in their company. From the above table, it has shown that 1-3 years of experienced participants have holding the highest percentage which is 40.00%. 20.00% of participants are 3-5 years of experience in their organization. A lot of respondents have an experience with below 1 year which is 29.33%.

**4. Statistical Analysis**

**Descriptive Analysis**

Descriptive Statistics										
	N	Minimum	Maximum	Mean		Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Std. Error	Statistic	Std. Error
DV	75	1	5	2.80	.167	1.443	.361	.277	-1.209	.548
IV1	75	1	5	2.80	.181	1.568	.190	.277	-1.547	.548
IV2	75	1	5	2.91	.170	1.472	.191	.277	-1.437	.548
IV3	75	1	5	3.07	.168	1.455	-.119	.277	-1.426	.548
IV4	75	1	5	2.68	.187	1.620	.245	.277	-1.600	.548
Valid N (listwise)	75									

**Table 4: Descriptive analysis of different variables**

The above table has illustrated descriptive statistics of the given DV and IVs of hypotheses. Hence, the analysis has been executed to investigate the association between the dependent variable and the independent variables. The mean value of DV is 2.80 and the SD of the mean is 1.443. On the other hand, the SE of the mean is 0.167 which has delivered an estimation of the variability or space of DV scores around the mean.

**Regression Analysis**

<b>Model Summary<sup>b</sup></b>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.916 <sup>a</sup>	.840	.831	.593	.840	91.833	4	70	.000	2.056

a. Predictors: (Constant), IV4, IV1, IV3, IV2  
 b. Dependent Variable: DV

<b>ANOVA<sup>a</sup></b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129.350	4	32.338	91.833	.000 <sup>b</sup>
	Residual	24.650	70	.352		
	Total	154.000	74			

a. Dependent Variable: DV  
 b. Predictors: (Constant), IV4, IV1, IV3, IV2

<b>Coefficients<sup>a</sup></b>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.828	.171		4.847	.000	.488	1.169
	IV1	.959	.096	1.043	9.998	.000	.768	1.151
	IV2	.188	.113	.192	1.667	.100	-.037	.413
	IV3	-.395	.084	-.398	-4.689	.000	-.563	-.227
	IV4	-.018	.080	-.021	-.230	.819	-.179	.142

a. Dependent Variable: DV

**Table 5: Regression analysis**

The above table has expressed the multiple regression analysis that proclaimed whether there is a relationship between DV and IVs or not. The significant value is 0.000 which is less than the p-value (0.05), hence it denoted that the hypotheses are highly signified.

**Reliability Analysis**

<b>Reliability Statistics</b>		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.921	.921	5

**Table 6: Reliability analysis**

The above table has articulated the Cronbach's Alpha test and the value is 0.921. This value has indicated that the data utilised for this investigation purpose is significantly reliable, and it will be helpful for further study analysis.

Validity Analysis

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.708
Bartlett's Test of Sphericity	Approx. Chi-Square	367.854
	df	10
	Sig.	.000

**Table 6: KMO and Bartlett's Test**

The above figure has displayed value that has developed from the KMO and Bartlett test. From the above table, it has been shown that the KMO value is 0.708, hence it can be articulated that the data are highly correlated.

Correlation Test

<b>Correlations</b>						
		DV	IV1	IV2	IV3	IV4
DV	Pearson Correlation	1	.878**	.755**	.528**	.493**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	75	75	75	75	75
IV1	Pearson Correlation	.878**	1	.817**	.776**	.602**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	75	75	75	75	75
IV2	Pearson Correlation	.755**	.817**	1	.684**	.803**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	75	75	75	75	75
IV3	Pearson Correlation	.528**	.776**	.684**	1	.674**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	75	75	75	75	75
IV4	Pearson Correlation	.493**	.602**	.803**	.674**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	75	75	75	75	75

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

**Table 8: Correlation Test**

The above figure has displayed the correlation between DV and IVs. The significant value is 0.000 which is less than the p-value (0.05), hence it denoted that the data is highly correlated.

**5. Discussion**

Based on the questions and objectives of the current study, review of the past pieces of literature, survey and SPSS analysis, it has been developed that, there is a significant association between internet connectivity and productivity in the workplace. As per the view of Chanana & Sangeeta (2021), internet connectivity has an assortment of different elements that can be utilised to boost productivity at the workplace. Recently, globalisation has been shown to improve contest, and trades require manners to build an enduring benefit. One such manner has possessed containing a website consisting of information associated with goods and services of the associations, consumer reviews, advertisements, as well as other business practices Haseeb et al. (2019). Internet connectivity has increased trade functions in multiple proportions. Workplace productivity is a paramount facet that can support, maintain, as well as sweeten the overall performance.

Internet services are repeatedly considered general-purpose due to they help all employee in the economising and outcome in productivity in the trade and particular advancements. On the other hand, as asserted by Leonardi (2021), information technology has pushed and encouraged creative approaches, and creation has supplied a framework for the conquest of a company. Recently, trade organisations have advantaged from the digital process and also even the agricultural field by using computers. The boosting assurance of the internet is cooperatively operating trades.

## 6. Conclusion

It has been concluded that workplace productivity is the greatest time employed by employees to manage and deliver choice developments. In a competitive atmosphere in the workplace, satisfactory productivity has been gained by keeping adequate resources. One critical resource is internet connectivity which can be incorporated and contained into the functioning settings of a trade association.

In digital world internet plays a vital role to enhance the place and position of the company or any organisation. The internet has revolutionised the way companies to do the business able to stand among with its competitors. With its help, the global marketplace is more accessible, connected, inclusive, and diverse. The Internet provides many benefits for business development, communication, and collaboration in real world. Today industries want to use high-speed Internet to accelerate their business operations and growth strategy. They rely strongly on this technology to enhance productivity and achieve operational efficiency. Businesses endure major changes with the help of the Internet. They become more flexible, agile, and adaptive to the rapidly-changing world. The impacts of the internet connection in any organisations are shown in its growth which shows in various ways like; improves workplace and business productivity, enhanced customer service, manages corporate networks, reduce the manpower workload etc. It is almost universally accepted that the Internet plays an increasingly higher role in each of our lives. It's such a vast, complex and yet permissive environment, that arouses interest in many of us. In this paper the researcher done research on the impact of the Internet on business, focusing on the changes brought by the Internet in running a business.

## References

1. Chanana, N., & Sangeeta. (2021). Employee engagement practices during COVID-19 lockdown. *Journal of public affairs*, 21(4), e2508. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://onlinelibrary.wiley.com/doi/abs/10.1002/pa.2508>
2. Cimini, C., Boffelli, A., Lagorio, A., Kalchschmidt, M., & Pinto, R. (2020). How do industry 4.0 technologies influence organisational change? An empirical analysis of Italian SMEs. *Journal of Manufacturing Technology Management*, 32(3), 695-721. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.sciencedirect.com/science/article/pii/S0007681319300965>
3. Guinan, P. J., Parise, S., & Langowitz, N. (2019). Creating an innovative digital project team: Levers to enable digital transformation. *Business Horizons*, 62(6), 717-727. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.sciencedirect.com/science/article/pii/S0378720618303197>
4. Haseeb, M., Hussain, H. I., Ślusarczyk, B., & Jermisittiparsert, K. (2019). Industry 4.0: A solution towards technology challenges of sustainable business performance. *Social Sciences*, 8(5), 154. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.mdpi.com/2199-8531/5/3/44>
5. Leonardi, P. M. (2021). COVID-19 and the new technologies of organizing: digital exhaust, digital footprints, and artificial intelligence in the wake of remote work. *Journal of Management Studies*, 58(1), 249. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7675341/>
6. Melović, B., Jocović, M., Dabić, M., Vulić, T. B., & Dudic, B. (2020). The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in Montenegro. *Technology in Society*, 63, 101425. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.emerald.com/insight/content/doi/10.1108/JMTM-08-2018-0270/full/html>
7. Obrenovic, B., Du, J., Godinic, D., Tsoy, D., Khan, M. A. S., & Jakhongirov, I. (2020). Sustaining enterprise operations and productivity during the COVID-19 pandemic: "Enterprise Effectiveness and Sustainability Model". *Sustainability*, 12(15), 5981. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.mdpi.com/2071-1050/12/15/5981>
8. Pan, Y., Froese, F., Liu, N., Hu, Y., & Ye, M. (2022). The adoption of artificial intelligence in employee recruitment: The influence of contextual factors. *The International Journal of Human Resource Management*, 33(6), 1125-1147. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.tandfonline.com/doi/abs/10.1080/09585192.2021.1879206>
9. Shin, H., & Kang, J. (2020). Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: Focused on technology innovation for social distancing and cleanliness. *International Journal of Hospitality Management*, 91, 102664. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.sciencedirect.com/science/article/pii/S0278431920302164>
10. Statista, 2023. [Online]. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.statista.com/statistics/1199110/remote-work-trends-covid-survey-september-december/>
11. Veile, J. W., Kiel, D., Müller, J. M., & Voigt, K. I. (2020). Lessons learned from Industry 4.0 implementation in the German manufacturing industry. *Journal of Manufacturing Technology Management*, 31(5), 977-997. Retrieved on: 18<sup>th</sup> August, 2023. From: <https://www.emerald.com/insight/content/doi/10.1108/JMTM-04-2019-0135/full/>